THE MEDIATING ROLE OF SENSE OF COMMUNITY IN THE RELATIONSHIP AMONG PRINCIPALS' CHARACTERISTICS, DISTRICT CHARACTERISTICS, AND SELF-EFFICACY BELIEFS OF PUBLIC SCHOOL PRINCIPALS IN FLORIDA

By

MILDRED VAN KESSEL WASKIEWICZ

A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

2002

This dissertation is dedicated to my parents, Mildred and Michael Van Kessel, and to my daughter, Kristin. My deepest appreciation and gratitude go to my parents for their unending support and encouragement throughout this doctoral program. From my early years, my parents not only taught me to value education but also to understand the importance of perseverance. They also taught me to appreciate and look for the humorous side of life. All of which was essential to this process. Their lives as my role models and mentors were also instrumental in my career choice of social work in education. Their collective wisdom has been a tremendous asset throughout my professional and educational career.

I also thank my daughter, Kristin, whose encouragement and understanding has been unwavering. While my career and educational endeavors throughout her childhood and adolescence kept me very busy, we were always there for each other. We continue to be an inspiration for and huge supporter of each other. She has become a beautiful young adult who is vibrant and will undoubtedly touch the future in her unique way.

ACKNOWLEDGMENTS

I would like to express my gratitude to my parents, Mildred and Michael Van Kessel, and to my daughter, Kristin, for their support and encouragement during this arduous process. I wish for my daughter the same love of learning and spirit of determination that my parents instilled in me.

I am grateful to my chair, Dr. Jim Doud, for his warmth and compassion throughout this process. Dr. Doud served to guide, inspire and lift me towards this achievement. I am also appreciative of the other members of my committee whose belief in me is heartfelt. I am grateful to Dr. Anne Seraphine for her time, encouragement, and support in helping me to appreciate and better understand statistical research. Her ability to make her love of research come alive for all of her students is truly remarkable and unique. I want to thank Dr. Tom Oakland for his time and support throughout this process. His thoughtful input and contributions were invaluable. I also want to thank Dr. Fran Vandiver for her guidance and support. Dr. Vandiver unknowingly challenged me to always stretch a little farther.

I also give special thanks to Connie Weber-Sorice, my dear friend and colleague, and her family. Connie helps others to understand that in every journey, there is meaning; in every conflict, there is growth; in every action, there is purpose; and in every moment of doubt, to remember to believe in yourself. Connie has helped to make this doctoral program not only a destination, but also

a journey. Her steadfast support and encouragement has helped to make this dream a reality for us both. For that I am eternally grateful.

I also want to acknowledge and thank the special ladies "back at the office," including Agnes, Sue, Tammy, and Pat, for their moral support, words of encouragement, and genuine interest throughout this process.

I also want to thank my other family members, many friends and colleagues who were always supportive and helped to keep me focused. To the other members of our doctoral cohort, those of whom who have graduated before me as well as those of whom whose time has yet to come, I appreciate the experiences we created and shared together.

I also appreciate the assistance of Barbara Smerage, my format editor, for her assistance in the final stretch of this research project. And finally, I owe special thanks to Dr. Patterson Lamb, my manuscript editor, whose thorough review and critique in the final stages of this dissertation were invaluable. The laughs we shared always helped to lighten to my spirit.

TABLE OF CONTENTS

page

ACKNOWLEDGMENTS iii

LIST OF TABLES viii

LIST OF FIGURES ix

ABSTRACT x

CHAPTER

1 INTRODUCTION 1

Statement of the Problem 8
Purpose of the Study 14
Research Hypotheses 15
Definition of Terms 16
Significance of the Study 17
Delimitations 21
Limitations 21
Organization of the Study 22

2 LITERATURE REVIEW 23

Principal Leadership 23
The Role of Community in the Workplace 27
Theoretical Perspectives on Self-Efficacy 37
Theoretical Frameworks on Sense of Community 44
Community Research 47
Summary of Research Findings 67

3 METHODOLOGY 69

Mediational Model 70
Participants 75
Institutional Review Board Procedure and Approval 75
Population 76
Sample 77

Instrumentation 82
Reliability 82
Community Assessment Guide 84
Personal and District Demographic Variables 88
Principals' Self-Efficacy Scale 88
Procedures 91
Data Analysis 94

4 RESULTS AND ANALYSIS OF DATA 98

Mediation Model Analyses 99
Research Hypotheses Analysis 100
Follow-up Analysis 106
Condition 1 Follow-up Analysis 108
Condition 2 Follow-up Analysis 110
Condition 3 Follow-up Analysis 112
Summary 113

5 CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS 115

Overview 115
Summary and Discussion of Results 120
Hypothesis 1: Sense of Community 120
Hypothesis 2: Self-Efficacy 124
Hypothesis 3: Sense of Community as a Mediator Between Antecedent Variables and Principals' Self-Efficacy 127
Conclusions 129
Implications 131
Additional Limitations 134
Recommendations for Future Research 135

APPENDIX

A UFIRB PROTOCOL FOR THE RESEARCH STUDY 140

B UFIRB APPROVAL OF PROTOCOL FOR THE RESEARCH STUDY. 144

C LETTER OF INFORMED CONSENT FOR THE RESEARCH STUDY. 146

D UFIRB APPROVAL TO INCREASE SAMPLE SIZE FOR RESEARCH STUDY 148

E COMMUNITY ASSESSMENT GUIDE 150

F PRINCIPALS' SELF-EFFICACY QUESTIONNAIRE 158

G PERMISSION FOR USAGE OF THE COMMUNITY ASSESSMENT GUIDE 163

H COMMUNITY ASSESSMENT GUIDE STUDENT USER AGREEMENT 165

I PERMISSION FOR USAGE OF THE PRINCIPALS' SELF-EFFICACY QUESTIONNAIRE 167

J GIFT CARD PREFERENCE FORM 169

K REQUEST FOR INFORMATION FROM THE FLORIDA DEPARTMENT OF EDUCATION 171

L LETTER TO PRINCIPALS-SECOND MAILING 173

M THANK YOU CARD TO RESEARCH PARTICIPANTS 175

REFERENCES 176

BIOGRAPHICAL SKETCH 183

LIST OF TABLES

Table		page
3-1	Gender	79
3-2	Race/Ethnicity	79
3-3	School Level	81
3-4	Total Number of Years' Experience as Principal in their District	81
3-5	District Enrollment Group	81
3-6	Principal Referents	82
3-7	Reliability Coefficients	83
4-1	Model Summary, Unstandardized Regression Coefficients, Standardized Regression Coefficients, t-test Statistics, and Semi-Partial r-squares for Hypothesis 1	102
4-2	Model Summary, Unstandardized Regression Coefficients, Standardized Regression Coefficients, t-test Statistics, and Semi-Partial r-squares for Hypothesis 2	104
4-3	Model Summary, Unstandardized Regression Coefficients, Standardized Regression Coefficients, t-test Statistics, and Semi-Partial r-squares for Hypothesis 3	107
4-4	Model Summary, Unstandardized Regression Coefficients, Standardized Regression Coefficients, t-test Statistics, and Semi-Partial r-squares for Condition 1—Follow-up Analysis	109
4-5	Model Summary, Unstandardized Regression Coefficients, Standardized Regression Coefficients, t-test Statistics, and Semi-Partial r-squares for Condition 2—Follow-up Analysis	111
4-6	Model Summary, Unstandardized Regression Coefficients, Standardized Regression Coefficients, t-test Statistics, and Semi-Partial r-squares for Condition 3—Follow-up Analysis	113

LIST OF FIGURES

Figure		page
1-1	Conceptual model of sense of community as a mediational variable	14
3-1	Mediational Model	71

Abstract of Dissertation Presented to the Graduate School of the University of Florida in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

THE MEDIATING ROLE OF SENSE OF COMMUNITY IN THE RELATIONSHIP AMONG PRINCIPALS' CHARACTERISTICS, DISTRICT CHARACTERISTICS, AND SELF-EFFICACY BELIEFS OF PUBLIC SCHOOL PRINCIPALS IN FLORIDA

By

Mildred Van Kessel Waskiewicz

December 2002

Chairman: James L. Doud
Major Department: Educational Leadership, Policy, and Foundations

The problem addressed in this study was to determine the role of sense of community among principals' demographic variables, district demographic variables, and self-efficacy beliefs. A stratified random sample of 180 principals were selected from four district enrollment groups in Florida (small, medium, large, very large) by three school levels (elementary, middle, high). A total of 94 surveys were returned yielding a response rate of 52.2%.

Sense of community was determined by principals' self-reported responses to the Community Assessment Guide, as developed by M. A. Royal and R. J. Rossi, described in Individual-level correlates of sense of community: Findings from workplace and school, in the *Journal of Community Psychology*, 1996. Principals' characteristics included gender, tenure (number of years as

principal in the district), school level (elementary, middle, high) and race/ethnicity (African American, Hispanic, White). District characteristics included the principals' referent group, and district enrollment group (small, medium, large, very large). Self-efficacy beliefs were determined by principals' self-reported responses to the Principals' Self-Efficacy Questionnaire, as developed by C. Dimmock and J. Hattie, described in School principals' self-efficacy and its measurement in a context of restructuring, in the journal *School Effectiveness and School Improvement*, 1996. Three research hypotheses were constructed to test for mediation and guided this study. Multiple regression analyses and semi-partial correlations were analyzed for the association among the variables of interest. A mediational model guided the development and testing of mediational hypotheses which served as the framework for this study.

In the full model using both sets of antecedent variables, sense of community did not serve as a mediator between personal/district demographic variables and self-efficacy beliefs. However, after removing the district demographic variables the results of this study supported earlier research that found sense of community acting as a mediating factor. Because this study demonstrated that all three conditions of mediation were met for the reduced model, sense of community was concluded to mediate, or help account for the relationship between gender and self-efficacy. In summary, female principals were more self-efficacious than male principals due to the mediated effect of sense of community in the workplace.

CHAPTER 1
INTRODUCTION

Schools operate within broader political, social, and normative contexts that form the attitudes and behaviors of educational leaders. Recent school reform initiatives have altered many long established beliefs about roles and relationships (Dimmock & Hattie, 1996). The importance of relationships in the educational environment helps to account for the confidence with which principals can cope with change in the context of restructuring. Educational leaders work within a variety of settings including their school, their district, with other principals, within their community, and with their colleagues in professional organizations. Characteristics of those settings affect the development of principals' leadership behaviors and their self-efficacy beliefs (Bandura, 1986). Principals also bring personal characteristics (i.e., gender, tenure, race/ethnicity) to those settings which also influences their behavior. In recent years, community psychologists and educators have given greater attention to the influence on behavior of an individual's competence in solving problems and building relationships. Attention to schools in the context of community reflects trends in the research literature that examines building and strengthening the networks of relationships within the workplace that support student outcomes (Royal & Rossi, 1996). Confidence in one's ability to solve problems and build relationships contributes to a sense of self-efficacy (Bandura, 1997).

Consequently, the performance of principals depends, in part, on strengthening educational institutions and the formal and informal networks of caring relationships that operate within the workplace.

Following years of viewing business organizations as machines driven by the bottom line and workers as dispensable, an increasing number of leaders are beginning to see their organizations as vital systems led by people with a shared vision about the future of the organization and myriad needs for interpersonal relationships, interdependence, and the incorporation of diversity. A major leadership challenge in today's world is in forming connections in the workplace to determine and meet the needs of all individuals. Strength in organizations comes from collaborations and partnerships. Many organizations are developing mechanisms for internal connections among their workforce. Work teams, committees, and partnerships are being formed to confront problems and invent new solutions (Shaffer & Anundsen, 1993).

However, despite what is known about the importance of work relationships and mutual support, the staff culture in many schools is marked by independence and autonomy, especially in secondary schools. Interestingly, "a growing body of research suggests, however, that experiencing a sense of community at work may benefit teachers personally and advance their instructional efforts" (Royal & Rossi, 1999, p. 259). Royal and Rossi (1996) have also found that sense of community has been associated with greater feelings of self-efficacy and fulfillment with work.

In the decade before the National Commission on Education released *A Nation at Risk* (1983), researchers in community psychology were beginning to examine the concept of sense of community, what it is, and its significance to their field. Sarason (1974) defined a psychological sense of community as "the perception of similarity to others, an acknowledged interdependence with others, a willingness to maintain this interdependence by giving to or doing for others what one expects from them, the feeling that one is part of a larger dependable and stable structure" (p. 157). Although Sarason paved the way for and lauded sense of community as an overarching value of community psychology, no definition had been operationalized or empirically tested at that time.

During the 1980s, community psychologists examined the phenomenon of community (Chavis & Newbrough, 1986; Dunham, 1986; Heller, 1989; Klein & D'Aunno, 1986; McMillan & Chavis, 1986; Shinn, 1987); central to each discussion was an attempt to define the elements of community, acknowledge that community is not tied to a place, and identify factors contributing to the decline of community. Broadly defined, community can describe any organization or institution with which a person identifies and finds meaning (Heller, 1989). McMillan and Chavis (1986) defined a sense of community as "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (p. 9).

Chavis and Newbrough (1986) noted the importance of those factors that had been included in studies of community such as the growth of nonterritorial

communities, the support and networks within various communities, the benefits of community, the needs that communities can meet for individuals, and the role of leadership for effective communities. Klein and D'Aunno (1986) posited that "the workplace may be a key referent for the psychological sense of community. Unfortunately, community psychologists have devoted little attention to workers or work organizations" (p. 365).

Goodlad (1981) contented that "it is difficult for schools to go beyond indoctrination and inculcation" (p. 344). He cited diminished expectations and the lowering of visions by some in leadership positions. He also asserted that "communities and a sense of community will continue to wither so long as our institutions, educational and other, are preoccupied with their own survival rather than with the human conditions and needs they are supposed to serve" (p. 353). He favored an ecological perspective to education, one that fostered healthy relationships among individuals and institutions. Goodlad advocated strengthening relationships among institutions and educating for the development of a sense of community.

Not until the 1990s did educational researchers begin to seriously examine the concept of sense of community within schools and educational settings (Barth, 1990; Bredeson, 1995; Bryk, Camburn, & Louis, 1999; DuFour & Eaker, 1992; Furman, 1998; Louis, Marks, & Kruse, 1996; Merz & Furman, 1997; Newmann, Rutter, & Smith, 1989; Royal & Rossi, 1996, 1997; Sergiovanni, 1994; Starratt, 1996). The researchers focused on the meaning of community within educational settings and its importance to educators and stakeholders. They

examined community in terms of what it means for education, as well as the features that foster community, such as structural, human, and social resources.

The Sense of Community Index, a theory-based measure of an individual's sense of community, was developed by Chavis based on the work of McMillan and Chavis (1986). It has been widely used since that time in a variety of settings (Chipuer & Pretty, 1999). During the 1990s, community researchers began to measure sense of community in the workplace (Burroughs & Eby, 1998; Catano, Pretty, Southwell, & Cole, 1993; Lambert & Hopkins, 1995; Pretty & McCarthy, 1991; Pretty, McCarthy, & Catano, 1992; Royal & Rossi, 1996, 1999). The researchers, in their studies, endeavored to operationalize the construct of community in the workplace as well as to identify antecedents and consequences of community in relation to a variety of factors. Royal and Rossi (1996, 1999), in their studies of sense of community in schools, have developed a set of assessment instruments for use in school and workplace settings. In addition to the development of their Community Assessment Guide, Royal and Rossi examined predictors of sense of community, including time-related variables, work arrangement schedules, and school organizational variables.

Thus, while the importance of community in territorial terms has declined, the importance of community as relational has grown. Royal and Rossi (1996) contended that

> if individuals are indeed increasingly relying on ties developed through various organizational affiliations for the support and feeling of attachment they once drew from communities of place, it is important to attend to the community experiences of individuals in these settings. (p. 395)

School reform initiatives during the past two decades added tremendous pressure and different kinds of challenges to the work environment of school administrators. As a result, these restructuring activities may interfere with or change long established roles and relationships, shift the bases of power, and alter widely held beliefs about teaching and learning. Newmann and Wehlage (1995) contended that school reform activities are likely to fail unless they are firmly based on sound interpersonal relations within the school. Rossi (Royal & Rossi, 1996), in his national research on dropout prevention, cited examples of programs that often failed as a result of any real efforts to build community among staff members. "Yet, amid the focus on pedagogy, curriculum, and school structures many prominent reform efforts have seemingly overlooked the important role played by interpersonal factors in the implementation of new approaches" (Royal & Rossi, 1996, p. 399).

Bandura (1997) acknowledged that, historically, social changes are not new, but what is different is the acceleration and degree to which society is experiencing tremendous informational, social, and technological changes. "These challenging realities place a premium on people's sense of efficacy to shape their future" (p. vii). Bandura added that many contemporary theorists place individuals as onlookers to events shaped by environmental factors. However, he argued that individuals are in fact active participants in defining "their own lives and the social systems that organize, guide, and regulate the affairs of their society" (p. vii).

The ability to manage change, often with unforeseen and overwhelming obstacles, requires that individuals use their judgment and skills to respond optimally in accordance with the presenting situation. "Effective functioning requires both skills and the efficacy beliefs to use them well" (Bandura, 1997, p. 37). However, Bandura cautioned that personal functioning is more than just knowing what to do. Instead, "perceived self-efficacy is a judgment of one's ability to organize and execute given types of performances, whereas an outcome expectation is a judgment of the likely consequence such performances will produce" (p. 21). Bandura (1997) added that self-efficacy beliefs are good predictors of choice and direction of behavior.

> Self-efficacy beliefs are constructed from four principal sources of information: enactive mastery experiences that serve as indicators of capability; vicarious experiences that alter efficacy beliefs through transmission of competencies and comparison with the attainments of others; verbal persuasion and allied types of social influences that one possesses certain capabilities; and physiological and affective states from which people partly judge their capableness, strength, and vulnerability to dysfunction. (p. 79)

It is through the cognitive processing of efficacy information and reflective thought that any judgments about personal capabilities become instructive.

Research has demonstrated that the principal is a requisite part of an effective school. In developing first-class schools, principals are charged with providing the leadership necessary to respond to continual changes, not only in responsibilities brought about by accountability and other related demands for increases in academic achievement, but in response to myriad social changes occurring within schools of the 21st century (DuFour & Eaker, 1992). The National Association of Elementary School Principals (NAESP) has recently

released *Leading Learning Communities: Standards for What Principals Should Know and Be Able to Do* (2001). With *Leading Learning Communities*, NAESP has taken a fresh new look at the role of principals. NAESP's Call to Action proposed 10 ways districts, states, and the federal government can support school leaders. One of the ways is to "build learning opportunities and networks of principals" (p. 81). To further elaborate:

> Just as teachers are isolated in their classrooms, so are principals often isolated in their buildings. School leaders need support and resources from other principals. Districts, states, and regions should provide a means of linking effective practices in the principalship, through principal mentoring, coaching, list serves, study groups and conferences. (p. 81)

Schlechty (2001) offered some answers to questions posed to educational leaders working to meet the current expectations that all children will succeed in school. To principals, he advised:

> Learn to see yourself as a member of the district-level team as well as the head of your own team at the building level. Recognize that your school is not the only system you need to consider; it is a part of a larger system. Other schools and other principals are not, or should not be, your competition. They are your allies and co-inventors. Your competition lies elsewhere, especially in the newly emerging purveyors of education, entertainment, and edutainment that are even now capturing the hearts and minds of our children and youths. (pp. 213-214)

Statement of the Problem

Many of the current problems faced by educators are a result of the loss of community in our schools as well as in society itself. "Though most principals, superintendents, and teachers have a desire to do better and are working as hard as they can to provide a quality education to every student they serve, the road is rough and the going is slow" (Sergiovanni, 1994, p. xi).

Community is important because it ties individuals together in ways that foster shared values and beliefs. It elevates individuals to higher levels of commitment and performance. Community can help organizational members be transformed from a collection of singular individuals to a collective "we," hence giving them a unique sense of identity and belonging. The need for community is experienced by all members of society. Our lives are made meaningful by a sense of belonging, of being connected to others. These connections are what make our lives significant. The loss of community often results in a search for substitutes, sometimes manifested in dysfunctional ways (Sergiovanni, 1994). Community is not without its problems. By its nature, community can be both inclusive and exclusive. Sergiovanni (2000) argues that these are serious issues because the world is in conflict. However, current communities are communities of difference. The challenge is to base our beliefs on the ethics of acceptance of others and the appreciation of differences. These universal values are at the heart of feelings of belonging and trust. These "core values place a high priority on building a community of relationships as a central part of a school's community of heart and mind" (p. 69).

In communities, the connections individuals have with each other are based on commitments. Communities are organized around relationships and interdependencies (Blau & Scott, 1962). Communities depend on norms, purposes, values, and collegiality. This sharing of norms and values that community members feel results not from a system that forces people to work together, but more from within individual members. Members of a community

make connections based on felt interdependencies and mutual obligations (Sergiovanni, 1994).

Researchers have attempted to identify reasons for loss of community in schools and organizations (Merz & Furman, 1997; Sergiovanni, 1994). A familiar framework in which to understand community is through Tonnies' (1957) theories on society and communities and his use of *gemeinschaft* and *gesellschaft* as metaphors. In essence, *gemeinschaft* translates to "community" and *gesellschaft* translates to "society." The relationships in *gesellschaft* are formal and distant, but in *gemeinschaft,* they are meaningful and personalized.

Tonnies (1957) noted that *gemeinschaft* or community exists in three forms, (a) by blood or kinship, (b) of place or neighborhood, and (c) of mind or friendship. Essentially, kinship-related identity is derived from families and extended families. Kinship provides family members with the feeling of support, peace, and cooperation that usually fosters the enjoyment of being in the company of family and relatives. Second, neighborhood or place identity comes from sharing common habitat or locale. This feeling of neighborhood community results from interactions among the community's members and fosters cooperation in working together and assisting one another in times of need. Even when members no longer share proximity of habitation, this feeling of neighborhood community often persists if supported by habits of reunion and customs. Third, *gemeinschaft* of mind or friendship is not aligned with kinship or neighborhood. Rather, it results from similarity of work and intellectual attitude. It usually develops from relationships based on similar callings. This type of

community is not based on a place but rather lives in the consciousness of its members. It is based more upon chance or free will (Tonnies, 1957). As schools or organizations transform from a collection of individuals to a community of the mind, they begin to have an understanding and an embodiment about what is shared.

> Tonnies' (1957) theory of *gesellschaft*
>
> deals with the artificial construction of an aggregate of human beings which superficially resembles the *gemeinschaft* in so far as the individuals live and dwell together peacefully. However, in the *gemeinschaft* they remain essentially united in spite of all separating factors, whereas in the *gesellschaft* they are essentially separated in spite of all the uniting factors. (p. 64)

Tonnies stated further that in the *gesellschaft* society, actions by an individual are not taken on behalf of others. Everyone is an individual and has no desire to produce for anyone else. This separation results in the lack of common values among its members. When a loss of community is experienced (*gesellschaft*), individuals may create substitutes for the loss or live without community. Some consequences of the loss of community (*gesellschaft*) include feelings of isolation, distrust, or aloofness. Sergiovanni (1994) believes that "it is time that the metaphor for school was changed from formal organization to community" (p. 14).

A number of studies have examined sense of community in the workplace (Burroughs & Eby, 1998; Catano et al., 1993; Lambert & Hopkins, 1995; Pretty & McCarthy, 1991; Pretty et al., 1992; Royal & Rossi, 1996) from a variety of perspectives; this study examined the mediational role of sense of community among principals in relation to their self-efficacy beliefs when coping with change

in the context of restructuring. An authentic sense of community among principals, from a district level perspective, would provide powerful opportunities to develop a shared accountability for performance of all district schools.

To begin to understand the shared responsibilities of community in the workplace, an understanding of the elements of community as well as the community building process is essential. Royal and Rossi (Rossi & Shank, 2000) identified 11 defining elements of community from their studies of critical incidents in more than 50 large and small companies across the United States:

1. Shared Vision
2. Shared Values
3. Shared Purpose
4. Trust
5. Respect
6. Caring
7. Recognition
8. Communication
9. Participation
10. Team Work
11. Incorporation of Diversity

Each element in isolation is not a new concept; however, together they define community. Building community in the workplace results from what people do. Community is created by individuals who take the lead in building community with others. "They do this by teaching and selling and thereby encouraging others to work together in a coordinated, mutually supportive fashion to achieve shared goals" (Rossi & Shank, 2000, p. 8). Leaders in the workplace help others to look at community in different ways. Leaders often talk about values, trust, and respect, and sometimes they model the behaviors that are congruent with community. Rossi and Shank suggested that the most

challenging task is to create opportunities that support community building among other staff. This requires creativity, commitment, and the ability to motivate. School districts that are organized with leaders who model a full-time commitment to excellence and provide opportunities for collaborative achievement promote community-building practices among employees.

In an effort to distinguish ways in which sense of community in the workplace may account for differences in principals' self-efficacy, this study was guided by a mediation model (Baron & Kenny, 1986). In this model, "a given variable may be said to function as a mediator to the extent that it accounts for or explains the relation between the predictor and the criterion" (p. 1176). Because studies of the construct of sense of community in the workplace, especially among principals, are limited, additional research was needed to determine the construct's potential as a mediational variable in relation to principals' self-efficacy. Figure 1-1 depicts the conceptual model for this study. Solid lines represent paths in the model where sense of community might be most important in explaining the relationships among the antecedent variables and the outcome variables.

In this study, sense of community was believed to function as a mechanism (the mediator) through which personal/district demographic variables (antecedent variables) were able to influence principals' self-efficacy beliefs (the outcome variable).

Guided by Baron and Kenny's (1986) model, sense of community was tested for mediation. According to this model, when the following conditions

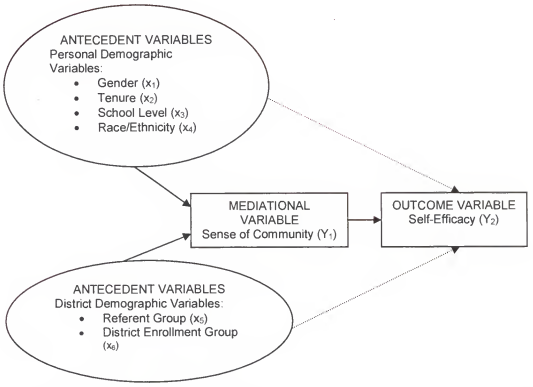


Figure 1-1. Conceptual model of sense of community as a mediational variable.

occur, a variable is functioning as a mediator: (a) the antecedent variables have significant positive relationships with the presumed mediator, (b) mediator variations account for variations in the outcome variable, (c) the antecedent variables are associated with the outcome variables, and (d) when adding the mediator, any previous associations between the antecedent and outcome variables are no longer significant. Mediation is strongest when there is no longer any relationship between the antecedent and outcome variables.

Purpose of Study

The purpose of this study was to examine principals' sense of community as a mediator between personal and district demographic variables and self-efficacy beliefs.

Sense of community was measured by school principals' self-reported responses to the Community Assessment Guide (Royal & Rossi, 1996). The personal and district demographic variables were obtained from principals' self-reported responses to Part Two-Background-of the Community Assessment Guide. Personal demographic variables (one set of antecedent variables) were defined as principals' gender, tenure, school level, and race/ethnicity. District demographic variables (one set of antecedent variables) were defined as the size of the principals' referent group and district enrollment group. Self-efficacy was measured by school principals' self-reported responses to the Principals' Self-Efficacy Questionnaire (Dimmock & Hattie, 1996). Dimmock and Hattie's (1996) measurement scale is specific to the self-efficacy of principals when coping with change in the context of restructuring. The following section delineates the specific hypotheses and model that were used to guide this research study. The hypotheses for this study were constructed to test for mediation and guided this study. The mediating role of sense of community is hypothesized in the section below.

Research Hypotheses

Hypothesis 1: Personal/district demographic variables are related to sense of community in the workplace.

Hypothesis 1 was constructed to test the first condition of mediation (i.e., the antecedent variables have significant positive relationships with the presumed mediator).

Hypothesis 2: Personal/district demographic variables are related to principals' self-efficacy.

Hypothesis 2 was constructed to test the second condition of mediation (i.e., the antecedent variables are associated with the outcome variable).

Hypothesis 3: Principals' sense of community will mediate the relationship between personal/district demographic variables and self-efficacy beliefs.

Hypothesis 3 was constructed to test the third condition of mediation (i.e., mediator variations account for variations in the outcome variable; and when adding the mediator, any previous associations between the antecedent and outcome variables are no longer significant).

Definition of Terms

For the purpose of this study, the following terms were defined as stated below:

District enrollment group is defined by the Florida Department of Education as small, medium, large, and very large.

Gemeinschaft is a metaphor for a theory used to characterize relationships among individuals who voluntarily associate because of shared values (Tonnies, 1957).

Gesellschaft is a metaphor for a theory used to characterize relationships among individuals that tend to be formal and distant, lack trust and loyalty, and are often shaped by contractual expectations (Tonnies, 1957).

Principal is the administrative leader of the school.

Psychological sense of community is "the perception of similarity to others, an acknowledged interdependence with others, a willingness to maintain this interdependence by giving to or doing for others what one expects from them, the feeling that one is part of a larger dependable and stable structure" (Sarason, 1974, p. 157).

Referent groups are the individuals with whom one aligns or associates. In this study a principal's referent group is made up of principals of other schools of the same or different level (e.g., elementary or middle) in the same area of the district.

School level refers to elementary, middle, and high.

Sense of community is "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (McMillan & Chavis, 1986, p. 9).

Significance of the Study

Sociologists have long been interested in the changing nature of community. Historically, the sense of community originated from rural life, barn-raisings, and quilting bees, where individuals were on a first-name basis with each other. This was the breeding ground for the qualities associated with the concept of community, homogeneity, interdependence, shared responsibility, and common goals. Toward the end of the 19th century, sociologist Emile Durkheim (1947) noted an increase in the changing nature of relationships from those based upon mutual interests and values to relationships that are characterized as

more impersonal and functional in nature. Tonnies (1957) also recognized changes in community and characterized them through the development of his concepts of *gemeinschaft* and *gesellschaft*. "Since the introduction of the concept 'psychological sense of community' by Sarason in 1974, there have been many attempts to operationalize, qualify, and apply it" (Pretty, 1990, p. 60). Sarason (1974) wrote that the

> concept of psychological sense of community is like that of hunger: neither is easy to define, but there is no mistaking it when an individual experiences the lack of psychological sense of community, just as there is no mistaking what we think an individual experiences as a result of starvation. (p. 3)

Sarason contended that individuals are bound spatially and psychologically. Furthermore, individuals want to be interconnected due to needs for intimacy, diversity, usefulness, and belongingness.

A common thread throughout much of the literature continues to be the breakdown of traditional social supports in communities and the resulting erosion on sense of community. Glynn (1981) noted that sense of community, so integral to Western culture, appears to be eroding and offered three views on the cause of this erosion of community: industrialization, the increase in centralized bureaucracies, and the "maintenance of an improper balance between local and centralized structures" (p. 792).

Most descriptions portray sense of community as something desirable and associated with a common bond among people. There are few who would argue with the importance of maintaining these relationships. The loss or decline of

involvement in one's community is often associated with the inability to maintain a supportive network of relationships (Glynn, 1981).

The growing importance in studying sense of community is evidenced by continued research of the construct (Bishop, Chertok, & Jason, 1997; Burroughs & Eby, 1998; Catano et al. 1993; Chavis, Hogge, McMillan, & Wandersman, 1986; Chavis & Pretty, 1999; Chipuer & Pretty, 1999; Davidson, Cotter, & Stovall, 1991; Glynn, 1981; Heller, 1989; Hughey, Speer, & Peterson, 1999; Klein & D'Aunno, 1986; Lambert & Hopkins, 1995; Lorion & Newbrough, 1996; McMillan, 1996; McMillan & Chavis, 1986; Pretty, 1990; Pretty & McCarthy, 1991; Pretty et al., 1992; Price, 1985; Puddifoot, 1996; Royal & Rossi, 1996, 1999; Sarason, 1974). In their effort to develop an operational definition of this construct, researchers have since developed several different measurement scales (Burroughs & Eby, 1998; Glynn, 1981; Lambert & Hopkins, 1995; McMillan & Chavis, 1986; Pretty, 1990; Royal & Rossi, 1996). In doing so, they have identified the properties of this construct, enabling measurement and a greater understanding of the ways in which sense of community can be increased or maintained among individuals in various contexts (e.g., work, neighborhood, church, school). While researchers continue to theorize about sense of community, there are still differences as to the exact dimensions that undergird the construct.

Individuals are increasingly achieving the social and emotional support they once obtained from family and neighbors through associations with workplace, church, and professional groups. To examine the sense of

community in the workplace offers a range of possibilities. Further understanding of antecedents and consequences of sense of community as well as whether sense of community serves as a mediator among factors affecting school principals' can be expected to have significant consequences for the work experiences of educational leaders.

A number of instruments designed to measure sense of community in various settings, including the workplace, have been developed. Royal and Rossi's (1996) Community Assessment Guide, developed from their work with corporations and schools, was especially designed to measure sense of community in the workplace. Their "conceptualization was initially derived from John Gardner's efforts to identify the critical ingredients of healthy and vital communities" (p. 399). Following a review of social science literature, Royal and Rossi (1996) conducted a variety of activities in order to refine and further develop their conceptualization of community. These activities included the collection and review of anecdotal reports of community experiences from individuals in workplaces and schools across the country, administration of surveys, focus group discussions, and pilot testing for validation purposes. Concerning their Community Assessment Guide, they report that

> correlations based on the Spearman-Brown prophecy formula yield reliability estimates greater than 0.93 for the complete instruments . . . . In addition, because high reliability estimates have been obtained for each instrument using multiple data sets, we can be confident of the stability of these estimates across different populations. (pp. 403-404)

Because Royal and Rossi's Community Assessment Guide has been used to assess dimensions of community in both work and school settings, further use of

this instrument to study sense of community among Florida principals is warranted.

Delimitations

The following delimitations were observed while conducting this study:

1. The study was limited to data gathered from principals randomly selected from school districts in Florida. No generalizations were made to other states outside of Florida.

2. No generalizations were made about sense of community or self-efficacy to other educational professionals.

3. Data collection was limited to principals' responses to the Community Assessment Guide, including the demographic section, and the Principals' Self-Efficacy Questionnaire. Results may not be compared to other studies that use different measures due to the lack of a common theoretical thread.

4. The study was limited to data gathered during the 2001-2002 school year. No inferences were made to other time frames.

5. No generalizations were made to other settings or organizations.

Limitations

The following limitations were observed while conducting this study:

1. The data were collected by a single administration of the surveys. No conclusions were drawn about causality.

2. For a thorough understanding of relationships concerning sense of community in the workplace, future research is necessary.

3. Individuals who responded to these surveys may be more likely to be involved in their organization, either positively or negatively. Thus, the results of this study may not generalize to those who consider themselves marginal.

4. An assumption was made that respondents had a common understanding of the terminology in the Community Assessment Guide as well as the Principals' Self-Efficacy Questionnaire.

5. An assumption was made that respondents would respond accurately and truthfully to the survey questions.

Organization of the Study

This chapter included a conceptual introduction to the study, statement of the problem, purpose of the study, research questions and hypotheses, significance of the study, definition of terms, and study delimitations and limitations. This first chapter also introduced the construct of interest and related theoretical framework. Chapter 2 contains a thorough review of the related literature. The literature review includes a detailed examination of the theoretical framework of community, the construct of sense of community, historical background, characteristics of sense of community, the importance of sense of community in the workplace, factors influencing and outcomes relating to sense of community in the workplace, and sense of community research. Chapter 2 also contains theoretical perspectives on self-efficacy, an examination of the construct of self-efficacy, including influencing factors and conditions that create a dissemblance between efficacy belief and action. Chapter 3 presents the methodology and design of the research study. Chapter 4 includes the results and data analyses. Chapter 5 provides a summary of the results, a discussion of the conclusions, implications, and recommendations for additional research.

CHAPTER 2
LITERATURE REVIEW

In 1983 the National Commission on Excellence in Education issued *A Nation at Risk,* which captured the country's attention with a bleak assessment of education in America's public schools. That report served as the impetus for subsequent educational reform efforts including the Excellence Movement of the 1980s and the Restructuring Movement of the 1990s. Since that time, research has demonstrated that the principal is a requisite part of an effective school. However, during the last decade, while there is still an emphasis on school efficiency, the focus has shifted to accountability and the use of standardized tests. In developing first-class schools, principals are charged with providing the leadership necessary to respond to the continual changes in responsibilities brought about by accountability and other related demands for increases in academic achievement (DuFour & Eaker, 1992).

Principal Leadership

As a result of that shift in focus, districts have moved much of the decision-making authority from the central office directly to the principal and school staff. Currently, the decision-making process in most schools involves the participation of a wide array of teachers, parents, and community members. Doud and Keller (1998), in their *A Ten Year Study The K-8 Principal in 1998,* found that principals' perceptions of their job have changed as a result of this

increased participation. They reported that over 60% of respondents cited the following areas of changing responsibilities for principals: marketing to generate support for school and education, working with social service agencies, planning/implementation of site-based staff development, developing instructional practices, developing curriculum, and working with site-based councils/other constituencies.

Inherent in each of the aforementioned areas of change is the need to utilize collaborative skills in an effort to embrace all available resources needed to enhance learning. In the Doud and Keller study (1998), when principals were asked to describe working relationships with school board members, superintendents, central office staff, teachers, parents, students, school advisory groups, and the community, 90% of those responding to the survey reported good/excellent relationships with six of the eight groups. The most positive relationships reported were with students (76%), teachers (62%), and school advisory groups (54%). "The most positive relationships with the superintendent, central office staff, and school board were reported by principals in small towns and rural areas and by those principals with less than five years of experience" (p. 7).

The dichotomy facing principals today is that they are expected to be accountable for student performance while at the same time they are expected to share the decision-making process with others. To this end, district staff must support principals by providing them with opportunities for skill development,

fiscal resources, and sufficient time to realize the desired results (Doud & Keller, 1998).

The National Association of Elementary School Principals (NAESP) has recently released *Leading Learning Communities: Standards for What Principals Should Know and Be Able to Do* (2001). This replaced *Standards for Quality: Elementary & Middle Schools* and *Proficiencies for Principals*, two documents designed to help ensure the best leadership for our schools. With *Leading Learning Communities*, NAESP has taken a fresh look at the role of principals. In this report, principals were given the opportunity to identify the important characteristics of instructional leadership. These characteristics helped NAESP identify what principals should know and be able to do and are in the form of six Standards for Principals:

1. Lead schools in a way that places student and adult learning at the center.
2. Set high expectations and standards for the academic and social development of all students and the performance of adults.
3. Demand content and instruction that ensure student achievement of agreed-upon academic standards.
4. Create a culture of continuous learning for adults tied to student learning and other school goals.
5. Use multiple sources of data as diagnostic tools to access, identify, and apply instructional improvement.
6. Actively engage the community to create shared responsibility for student and school success. (NAESP, 2001, p. 2)

Although principals are crucial to helping students meet learning expectations, they must no longer be just managers; rather, they must be on the forefront in

elevating instruction and student achievement. "They must be the force that creates collaboration and cohesion around school learning goals and the commitment to achieve those goals" (NAESP, p. 1).

To further emphasize the importance of district staff to support and provide opportunities to principals in their quest to achieve school learning goals, NAESP's (2001) *Leading Learning Communities*, illuminated 10 ways districts, states, and the federal government can support school leaders. One of the ways is to "build learning opportunities and networks of principals" (p. 81).

Schlechty (2001) offered advice to school leaders working to ensure educational success for all students. He advised that principals must begin to view their schools as one part of the larger system. By recognizing that they are a member of the district-level team, principals should be able to consider all of the larger system and not just their individual schools when making decisions and planning for the success of their students. Schlechty noted that principals must begin to view other principals are their allies, not their competition, as their competition lies outside the system.

Much has been written about the failure of past reform strategies. DuFour and Eaker (1992) reported that studies have shown that school professionals choose to focus on peripheral changes instead of the major issues of teaching and learning. Fullan (1999) argued that in order to address complex change, practitioners must examine change efforts in relation to theories of education and theories of change. He postulated that educators should ask "what pedagogical

assumptions and associated components are essential . . . and what strategies are formed to guide and support implementation" (p. 20).

Fullan (1999) contended that change is complex, and for change to be effective, leaders must form relationships with people they may not like or understand. Inevitably, differences and conflict surface in heterogeneous relationships. "Conflict, if respected, is positively associated with creative breakthroughs under complex, turbulent conditions" (p. 22). Organizations that foster differences and promote inclusionary policies develop natural sources of diversity. It is the collaborative diversity that is important. Supportive relationships help individuals respond to change. "Collaborative cultures are innovative not just because they provide support, but also because they recognize the value of dissonance inside and outside the organization" (p. 27).

The Role of Community in the Workplace

Numerous researchers have written that collaborative schools, or learning communities, are essential for sustained improvement (Barth, 1990; Brandt, 1998; Deal & Peterson, 1999; DuFour & Eaker, 1992; Hall & Hord, 2001; Louis & Kruse, 1994; Merz & Furman, 1997; Newman & Wehlage, 1995; Sergiovanni, 1994, 2000; Snyder, Acker-Hocevar, & Snyder, 2000; Spady, 1998). Researchers outside of education have also concluded that the way to success is through a learning organization. Senge (1990) concurred that "the organizations that will truly excel in the future will be the organizations that discover how to tap people's commitment and capacity to learn at all levels in an organization" (p. 4).

The salient features of learning communities include shared vision and values, collaborative teams, a sense of belonging, supportive relationships, collective inquiry, a results orientation, purpose and direction, mutual commitments, and risk taking (Barth, 1990; DuFour & Eaker, 1992; Hall & Hord, 2001; Merz & Furman, 1997; Sergiovanni, 1994). Because the concept of community has been advocated as desirable by a number of well-known scholars, it is important to gain a clearer focus of what is meant by this construct. According to Starratt (1996), many researchers consider community as a means to an end. The learning community has as its focus the development of learning and knowledge. "Learning was the end; community inquiry and performance were the means" (p. 89). Starratt (1996), however, advocated community as an end rather than a means, with its goal the creation of community. "The major learning outcome now is the learning of community--how to be one, how to sustain community in the face of divisive conflicts and centrifugal forces, and how to become more of a community" (p. 89).

A familiar framework in which to understand community is through Tonnies' (1957) theory of *gemeinschaft* and *gesellschaft.* In essence, *gemeinschaft* translates to "community" and *gesellschaft* translates to "society." Tonnies noted that *gemeinschaft,* or community, is manifested in three forms, (a) through family, (b) through locale such as a neighborhood, and (c) through mind or friendship. The family provides its members with the feeling of support and cooperation. The community of locale results from interactions among members and fosters cooperation and assistance during times of need. Often,

long after neighborhood members no longer share proximity of habitation, they will continue to share feelings of community supported by habits of reunion and customs. The *gemeinschaft* of mind or friendship results from similarity of work and intellectual attitude and it usually develops from relationships based on similar callings (Tonnies, 1957).

Gesellschaft, or society, is characterized by a lack of common values among its members. When a loss of community (*gesellschaft*) is experienced, individuals may experience feelings of isolation, distrust, aloofness, or alienation. Often, actions by individuals are not taken on behalf of others, but rather on behalf of themselves. As schools or organizations transform from a collection of individuals to a community of mind, they begin to have an understanding about what is shared (Tonnies, 1957).

To understand the potential of community for reinventing schools, Starratt (1996) explored the roots of modernity to postmodernity. "One of the major beliefs of modernity was that the individual was the primary social unit" (p. 89). He cited the philosophies of Thomas Hobbes and John Locke, from which "there emerged a theory of 'possessive individualism'" (p. 89). Individuals thought of themselves as private property. "Hence their talents, such as intelligence, business acumen, creativity, and artistic potential, belonged to them independent of their relationship to the community" (p. 90). Therefore any development of the individual was for his or her betterment. Under this belief, society would advance as a result of the combined achievement of individuals. "In this perspective, community is simply made up of self-serving individuals who use the community

for their own individual purposes" (p. 90). This direction toward individuality was a reaction against the centuries-old stifling of individual initiatives by tribes or clans or those communities governed by religious orthodoxies, with systems of power and class. Any freedom of individual expression had been controlled by tradition or religious authority. Starratt (1996) maintained that even some contemporary scholars fear the idea of community, believing that it may "stifle dissent, smother creativity, and ostracize differences" (p. 90). Starratt (1996) argued that

> with our growing understanding of the interconnection of all natural systems on the planet, our growing understanding of the interconnection of living systems with cultural systems, our growing awareness of the interconnection between human intelligence and the tacit or inchoate intelligence in the universe as it has reflexively evolved, we are poised to create ourselves as new kinds of communities and new kinds of individuals. (pp. 92-93)

Moreover, he concluded that "the challenge of building a richer form of community in our schools is a reflection of the challenge facing our society at large, namely the widespread creation of richer forms of community life" (p. 93).

Starratt (1996) acknowledged that to achieve community is a struggle, the struggle between human instincts. The first instinct is that the very nature of the individual is to want to be at the center of attention, to be the focus. Individuals are drawn by a proclivity for survival. Individuals want to be in control and to arrange things to meet their needs. However, because individuals also want to feel secure in their world, they are always looking outward for affirmation of how they are doing. It is this social world that defines the individual. Individuals have a second instinct, one that is more mature. It is the instinct of connection with

others, whether that is a spouse, a friend, an extended family, or a nation. The connection with others leads to increased adaptability and creativity. Therefore, the instinct for individual survival may be viewed as self-defeating and that communities that close in on themselves may actually be threatening their own survival. "The more mature community embraces the community of humanity, the community of life, and the community of being, and finds through that bonding an increased wisdom and strength that are the seeds of its own transformation" (p. 96).

The influence that a principal has upon a community can be substantial. The school leader can administer a process for building and maintaining community. However, a community forms because the people of the community make it a community. It is in consonance with teachers, parents, and students that principals engage in eliciting the instinct of interconnectedness with others (Starratt, 1996).

"In most vital organizations, there is a common bond of interdependence, mutual interest, interlocking contributions, and simple joy" (DePree, 1989, p. 101). Although internal politics of one-upmanship continue to be present in workplaces across the country, a new undercurrent of sense of community, "we're all in this together, so let's support one another," is becoming increasingly more common (Shaffer & Anundsen, 1993, p.113).

Shaffer and Anundsen (1993) interviewed CEOs, managers, and employees of workplace organizations of various sizes across the country to

identify eight qualities that foster the development and maintenance of

community in the workplace.

1. Alignment of values—identification with the organization and pursuit of a common mission align with personal values.

2. Employee-based structure—structures emphasize interdependent networks and participatory decision making.

3. Teamwork—the organization supports continual opportunities for employees to learn each other's skills and provides opportunities for leadership.

4. Open communication—communications move upward, downward, sideways, and outside in as well as inside out. The workplace organization aggressively pursues feedback from outside and welcomes internal questioning.

5. Mutual support—workers develop a level of trust that instills an eagerness to assist one another with projects and initiatives.

6. Respect for individuality—building community is intertwined with building individuals. The health of modern communities is based on diversity. Better decisions and fuller community experiences arise from organizations that value ethnic, racial, and gender differences and actively seek the unique perspectives of all.

7. Permeable boundaries—an interdependence with all employees, customers, and surrounding community is highly valued. Everyone is viewed as part of the same system and an "us and them" mentality is avoided. Employees' families are welcomed and made to feel a part of the overall organization.

8. Group renewal—employee retreats, group renewals, and team building are a regular part of healthy organizational communities. These activities help to foster a sense of the group as community, as well as clarify values and a recommitment to the organization's vision and mission. The reviewing of organizational history and celebrations of milestones and achievements during group activities aids in the bonding process for all.

There are many questions related to the concept of community. While

numerous questions may be asked, for Sarason (1974),

> the overall thrust is clear: a community is more than a political or geographical area. It contains a variety of institutions which may be formally or informally related to each other—or not related at all. It is made up of a myriad of groups, transient or permanent, which may have similar or different purposes and vary in size, power, and composition. . . . A community has changed, is changing, and will change again. . . . Communities have many characteristics in common, but each in some ways possesses distinctiveness. (p. 131)

Gusfield (1975) characterized two ways a community can be viewed: (a) proximal, such as neighborhood or city; (b) relational, "concerned with quality of character of human relationship, without reference to location" (p. xvi). Heller (1989) also acknowledged two ways that community is generally recognized, first as locality and second as relational. In relational communities, the emphasis is on human interactions within organizations and institutions. Heller maintained that relational communities serve as a mediating structure, connecting "individuals to the larger social order" (p. 6). Although some of the ideas on community included in this study relate to location, the major thrust of ideas and concepts in this study will pertain to relational communities.

Sarason (1974) acknowledged that there continue to be individuals as well as groups who do not feel a part of the larger community, whose psychological sense of community does not include the larger community, either spatially or relationally. Similar to students who no longer identify with their university, a growing number of individuals lack interest or affiliation with their community. Some believe that a psychological sense of community was easier to achieve in the past when communities were smaller and interpersonal contacts were more frequent. Sarason (1974) maintained that it was not growth per se in our society, but rather the type of growth that devalued our sense of community.

Individuals may have a variety of referent groups for their sense of community. Individuals can experience sense of community from membership in families, gangs, professional or work organizations, and churches. The members of an individual's referent group may live in a variety of places throughout the world. Sarason (1974) defined referents as those groups that provide structure and meaning to the lives of the individuals within those groupings. He believed that a feeling of aloneness that some individuals experience may be a manifestation of loss of community. Within the workplace, we often encounter individuals who lack identification with their family, profession, or other groups of individuals. In exploring what can be done, Sarason thought the objective must be "to create the conditions in which people can experience a sense of community that permits a productive compromise between the needs of individuals and the achievement of group goals" (p. 155). He further contended that the characteristics of psychological sense of community are not hard to articulate, maintaining that it is

> the perception of similarity to others, an acknowledged interdependence with others, a willingness to maintain this interdependence by giving to or doing for others what one expects from them, the feeling that one is part of a larger dependable and stable structure. (p. 157)

Klein and D'Aunno (1986) studied sense of community in the workplace. They maintained that the workplace often serves as a significant factor in one's identity, satisfaction, values, mental health, and recreational activities. The psychological sense of community has also been defined as "a feeling that members have of belonging, a feeling that members matter to each other and to the group, and a shared faith that members' needs will be met through their

commitment to be together" (McMillan & Chavis, 1986, p. 9). Klein and D'Aunno (1986) found that the psychological sense of community at work encompasses membership, engagement, and a oneness with others. This sense of community may include associations with a group as small as the company bowling team or as large as the population of school superintendents across the country.

Klein and D'Aunno made a further distinction between sense of community in the workplace and the concepts of job satisfaction and organizational commitment. They believed that while job satisfaction may positively correlate with sense of community, job satisfaction is not required for one to experience the condition. Individuals may be satisfied with their tasks, remuneration, and conditions, but may score low on sense of community due to working in isolation from others. In contrast, members who are dissatisfied with their jobs may feel a strong sense of community with other workers who feel similarly oppressed or unhappy at work. In terms of organizational commitment, an individual's identification or involvement with the organization can be characterized by an acceptance or belief in the organization's goals, mission, and values; a desire to work hard on behalf of the organization; and a feeling of wanting to be a member of the organization. The two concepts are quite similar in that when a member's referent for sense of community is the entire work organization, he or she may also feel an attachment to the organization. Because individuals may have several different referent groups for sense of community at work, concepts of organizational commitment and sense of community are related, but not the same.

In a study of organizational factors that affect school sense of community and self-efficacy, Newmann, Rutter, and Smith (1989) argued that alienation of teachers in high schools can be diminished through changes in school organization. As previously noted, individuals may experience alienation as a result of the loss of community (Tonnies, 1957). Alienation refers to relationships that are characterized by feelings of detachment and isolation. Alienation may affect relationships with other people as well as processes such as work. Rosenholtz (1989) maintained that alienation may be reduced with the presence of high efficacy, as under some circumstances, efficacy signifies a sense of agency, engagement, and positive regard for work. Newmann (1981), in his study on reducing alienation in high schools, contended that many educational reform movements have not been successful due to their failure to recognize the student's needs for affiliation, support, and clarity of purpose.

A sense of community among colleagues can counteract the fragmentation of work and social isolation often felt among individuals by conveying cooperative interdependence and relationships built on unity. A sense of community should also provide the personal support and collegiality that individuals need to better manage a demanding and stressful job (Newmann, Rutter, & Smith, 1989). Rossi and Stringfield (1995) also noted that a strong sense of community must be in place to help staff members respond effectively to the challenges associated with the ever-changing school reform initiatives.

Theoretical Perspectives on Self-Efficacy

Individuals are better able to achieve desired results when they strive to control the events that influence their lives. "The ability to secure desired outcomes and to prevent undesired ones, therefore, provides a powerful incentive for the development and exercise of personal control" (Bandura, 1997, p. 2). Bandura (1995) contended that individual's motivation and actions are more a result of their beliefs than what is objectively the case. Agency refers to intentional acts, and among the mechanisms of agency, none is more essential than beliefs of personal efficacy. "Perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations" (p. 2).

Efficacy beliefs affect human functioning through the interaction of four major processes. They include cognitive, motivational, affective, and selection processes.

> Self-efficacy beliefs are the product of a complex process of self-persuasion that relies on cognitive processing of diverse sources of efficacy information conveyed enactively, vicariously, socially, and physiologically. Once formed, efficacy beliefs contribute importantly to the level and quality of human functioning (Bandura, 1995, p. 11).

Self-efficacy is important to educational leaders because it is central to the production of results. If individuals believe they have no little or power to produce results, they will not strive to make things happen. Research has shown that the principal is an integral part of an effective school. In developing first-class schools, principals are charged with providing the leadership necessary to respond to continual changes, not only in responsibilities brought about by

accountability and other related demands for increases in academic achievement, but in response to myriad social changes occurring within schools of the 21st century (DuFour & Eaker, 1992).

> Self-efficacy beliefs are constructed from four principal sources of information: enactive mastery experiences that serve as indicators of capability; vicarious experiences that alter efficacy beliefs through transmission of competencies and comparison with the attainments of others; verbal persuasion and allied types of social influences that one possesses certain capabilities; and physiological and affective states from which people partly judge their capableness, strength, and vulnerability to dysfunction. (Bandura, 1997, p. 79)

Self-efficacy beliefs are often a better predictor of successes and failures than past performance, because efficacy judgment involves more than just executed actions. Efficacy beliefs are built on the cognitive processing of the diagnostic information that performances convey about capability. Appraisal of efficacy involves the inferential processing of the relative contributions of ability and nonability factors to the performance (Bandura, 1997).

There are several related views of personal efficacy including self-concept, self-esteem, and locus of control. Self-concept or self-appraisal has often been compared to self-efficacy. Self-concepts are formed through direct experiences and evaluations adopted from significant others. Self-concept contributes to one's attitude and general outlook on life. Even if self-concept is related to some aspects of functioning, self-efficacy beliefs "vary across different domains of activities, within the same activity domain at different levels of difficulty, and under different circumstances" (Bandura, 1997, p.11).

Self-esteem and self-efficacy have often been used interchangeably as though they represented the same construct. Self-efficacy is "concerned with

judgments of personal capability, whereas self-esteem is concerned with judgments of self-worth" (Bandura, 1997, p. 11). Locus of control concerns the beliefs about whether actions affect outcome. In terms of their relationship to behavior, efficacy has been shown to be a good predictor of different forms of behavior, whereas locus of control has been an inconsistent predictor of the same behaviors.

It is also important to note that there are sources of discordance between efficacy judgment and action. Although efficacy is related to action, a number of factors can affect that relationship. Efficacy beliefs can increase and maintain motivation, but they will not produce performances if the requisite subskills are wholly lacking. Through the efficacy belief of self-development, capacity is converted to capability. "Belief in one's learning efficacy activates and sustains the effort and thought needed for skill development. Conversely, self-efficacious thinking retards development of the very subskills upon which more complex performances depend" (Bandura, 1997, p. 61).

Bandura (1997) contended that there are several conditions that can create a dissemblance between efficacy belief and action. Some of these disparities are a result of deficiencies of assessment, ambiguities of task demands, or the conditions under which thought is related to action. It is important that any relationship between efficacy and action draw upon similar capabilities; otherwise, it would be measuring different competencies. In addition, efficacy beliefs have good predictive validity if they are measured in terms of different degrees of attainment. Attainment efficacy is the preferred

measure rather than means efficacy because it is more predictive. "In judging their attainment efficacy, individuals can consider all of the means they have at their disposal to exercise control" (Bandura, 1997, p. 63). Also, global measures of efficacy often hide the diversity of the behavior being predicted.

The most common form of judgmental discordance is that personal efficacy exceeds performance. However, Bandura cautioned that optimistic judgments are not necessarily due to an overinflation of individuals' views of their capabilities, but rather, the disparities may stem from an inadequate knowledge of task demands or of how the social system works. Another factor that impinges on the degree of relation between efficacy and action is due to temporal disparities. "Behavior is regulated by efficacy beliefs that are operating at the time of the behavior, rather than by those held earlier, unless they have remained unchanged in the interim" (Bandura, 1997, p. 67). It is preferable to measure efficacy beliefs and action in close temporal proximity; otherwise, people may be acting on altered self-beliefs. However, it would also be inaccurate to say that efficacy beliefs cannot predict behaviors after long periods of time. The most relevant factor is not the amount of time during the interim, but whether the efficacy beliefs have been changed by an intervening experience. The stability of efficacy beliefs over time is determined by their strength, the way in which they were acquired, and the influences of intervening experiences.

If an activity involves an element of threat, efficacy beliefs have been shown to exhibit a gradient of strength. As the task draws closer or begins to appear more formidable, personal limitations may move to the forefront in one's

thoughts. However, firmly established efficacy beliefs remain tenacious despite the temporal or physical proximity to the relevant activity. In contrast, weakly held beliefs are subject to change. The seriousness of errors also influences the accuracy of self-efficacy judgments. However, if the missteps carry no consequences there is little incentive for self-appraisal, unless the errors become public. "Concern over what others might think becomes more important than how well one performs an inconsequential activity on some future occasion" (Bandura, 1997, p. 68).

Incentives and resources also play a major role in performance. Individuals may possess the necessary skills to perform the task, and they have strong efficacy beliefs; however, they have no incentive to perform. In addition, efficacy may not be expressed in action, if the necessary resources are not available or are lacking (Bandura, 1997).

Faulty self-knowledge also affects self-efficacy beliefs. Sometimes people do not fully understand what they have to do, they may have a limited basis on which to assess their self-efficacy, there may be personal factors that distort their self-appraisal, or they may have selective recall of personal successes or failures. Nonability influences contribute to an individual's performance. Those contributors include an interaction among motivational, self-regulatory, and affective nonability determinants (Bandura, 1997).

If efficacy beliefs only reflect what people can do, they would in many cases remain tied to habitual performances. The attainment of skills and the growth in knowledge require perseverant effort in the face of adversity. A

resilient sense of personal efficacy is necessary to overcome the many deterrents to significant accomplishments. "An optimistic belief in one's efficacy is thus a necessity, not a character flaw. Optimistic self-appraisals of capability raise aspirations and sustain motivation in ways that enable people to get the most out of their talents" (Bandura, 1997, p. 72).

Self-efficacy in occupational socialization predicts future success and satisfaction. In the case of new members to an organization, the efficacy beliefs that they bring and further develop during their initial training contribute to the success of the socialization process. Newcomers with secure self-efficacy beliefs fare much better than do their low self-efficacy colleagues. Organizations that provide to their new employees mastery experiences, effective coworker models, and performance feedback help to facilitate occupational efficacy which leads to future success and a stronger commitment to the organization (Bandura, 1997).

Similar patterns in occupational self-efficacy for gender and ethnicity was also noted. In their study of socioeconomic status and gender to occupational choices, Hannah and Kahn (1989) contended that occupational efficacy is the result of socioeducational experiences and cultural beliefs. Gender and social class barriers may diminish occupational efficacy. Women's pursuits of non-traditional careers are constrained by their lowered sense of efficacy for traditionally male dominated roles (Bandura, 1997; Betz & Hackett, 1981). Women's career choices are also shaped by their efficacy to handle both occupational and familial responsibilities (Stickel & Bonett, 1991). Research on

minorities and occupational efficacy has been comparatively minor in relation to research on gender differences and occupational efficacy (Bandura, 1997). However, "because the sociostructural barriers for women and ethnic minorities are similar, their patterns of perceived occupational efficacy are much the same" (p. 438).

Rapid changes in the workplace require a high sense of efficacy and versatility. Work within teams often helps to foster an enabling work environment that produces a highly skilled and flexible workforce. Although the work life becomes more diversified and challenging, it is through self-management that more personal control is afforded. Team work often requires managers to give up control and serve as facilitators who provide resources, guidance, and support. It is interesting to note that this enabling work environment builds managers' sense of efficacy to lead productive teams. The self-managing structure must be genuine at all levels of the organization; otherwise, it will not prove to be an effective approach. Efficacious adaptability is required if organizations want to remain successful in the future. Rapid change requires different forms of efficacy that determine growth and effectiveness. First is the ability to recognize and respond quickly to changes that affect products or services. The second type of change relies on efficacy to create continual and incremental improvements through experimentation and modeling of other successful practices. The third type requires creative innovations that develop new products or services that foster market demands (Bandura, 1997).

Managerial decision making is affected by personal efficacy beliefs. One's personal efficacy affects what information is gathered, how it is interpreted, and how it is used for managing situational challenges. Managers must be secure in their personal self-efficacy to remain task oriented, especially in the face of adversity. "Effective decision making . . . requires a high sense of managerial efficacy not only in analytic thinking but also in social persuasion, management of power conflicts, and building coalitions" (Bandura, 1997, p. 451). To improve the quality and productivity of an organization, requires that a leader be receptive to innovations. Efficacy beliefs affect not only how receptive the administrator will be to innovations, but also the readiness with which employees adopt them.

Theoretical Frameworks on Sense of Community

A number of researchers have proposed frameworks for understanding sense of community in the workplace (Burroughs & Eby, 1998; Klein & D'Aunno, 1986; Lambert & Hopkins, 1995; Pretty & McCarthy, 1991; Royal & Rossi, 1996). Klein and D'Aunno (1986) have proposed a framework for understanding psychological sense of community in the workplace. Their framework includes three components: "(1) factors hypothesized to influence or determine sense of community in the workplace; (2) referents or anchor points for individuals' sense of community; and (3) mechanisms that underlie and explain the relationship between the hypothesized determinants and sense of community" (pp. 366-367).

Klein and D'Aunno's (1986) first component, determinants of workplace sense of community, include the following characteristics: individual employee characteristics such as homogeneity of group members and need for affiliation,

individual demographic characteristics such as employee tenure with the organization, employee age, income, and education; job characteristics such as task identity, task significance, and feedback; leader characteristics such as modeling supportive behavior and providing opportunities for meaningful participation in the group or organization; subgroup characteristics such as group tasks and group process; organizational characteristics such as participative management and information sharing, as well as organizational demographics such as size, age, and profitability; and extra-organizational characteristics such as environmental factors of supply and demand, and amount of bureaucracy.

Klein and D'Aunno's (1986) second component, workplace referents, include friendship network such as a circle of friends who may socialize outside of work; and functional subgroup that may include working together on a common task or toward a mutual goal. Members may be from a small work group or a department or division within the larger organization; the organization as a whole may serve as a referent when members feel a sense of belonging or membership; and the last two referents transcend the singular organization when members feel a sense of community with their profession or job class. Those individuals may not actually work together. The last referent is the work site, such as a "one-company town."

Klein and D'Aunno's (1986) third component of the framework are those mechanisms that impact the determinants of sense of community. This occurs when the determinant "increases the individual's perception that a group or 'community' exists . . . increases the individual's positive appraisal of the

group . . . and/or fosters the individual's sense of active involvement in the group" (p. 372).

McMillan and Chavis (1986) developed a sense of community model consisting of four dimensions broad enough to include both geographical and relational community. Those dimensions included membership, which fosters a sense of belonging to and identification with the larger organization or group; influence, which is demonstrated by reciprocal relationships that affect change in each other; fulfillment of needs through cooperative behavior—this dimension helps individuals get their needs met; and emotional connection, the sense of support that arises out of the struggles and successes of the relational network. Later, McMillan (1996) rearranged and renamed the four elements as follows: "spirit, trust, trade, and art" (p. 315). In the decade that followed McMillan and Chavis' (1986) initial model, McMillan (1996) came to see sense of community "as a spirit of belonging together, a feeling that there is an authority structure that can be trusted, an awareness that trade and mutual benefit come from being together, and a spirit that comes from shared experiences that are preserved as art" (p. 315).

Burroughs and Eby's (1998) definition of psychological sense of community was developed from current literature and interactions with community-building experts. Their elements of psychological sense of community incorporated and built upon the McMillan and Chavis (1986) model. The six dimensions of Burroughs and Eby's (1998) Psychological Sense of Community Scale include coworker support, emotional safety, sense of

belonging, spiritual bond, team orientation, and truth-telling. Burroughs and Eby's (1998) framework of antecedents and consequences of sense of community include, as antecedents, individual, group, and organizational characteristics, and psychological contracts; and their consequences of sense of community include job satisfaction, and organizational citizenship behaviors of loyalty, civic virtue, altruism, and courtesy. Their individual, group, and organizational characteristics include need for affiliation, tenure, workgroup size, and number of acquaintances in the workgroup as well as the psychological contracts of organizational benefits, employee participation, and working relationships.

Community Research

Studies have also investigated sense of community in a wide variety of contexts, including the workplace (Burroughs & Eby, 1998; Lambert & Hopkins, 1995; Pretty & McCarthy, 1991; Pretty et al., 1992; Royal & Rossi, 1996; Royal & Rossi, 1999), a job training center (Brodsky & Marx, 2001), a union setting (Catano et al., 1993), a university residence hall (Pretty, 1990), early family experiences (Davidson, Cotter, & Stovall, 1991), an alcoholic residential program setting (Bishop et al., 1997), adolescents in social settings (Pretty, Andrews, & Collett, 1994; Pretty, Conroy, Dugay, Fowler, & Williams, 1996), and the college environment (Lounsbury & DeNeui, 1996).

Using the McMillan and Chavis model, Pretty and McCarthy (1991) adapted the Sense of Community Index for use in the workplace. In their study within a corporate environment, they examined characteristics of the

psychosocial climate that predicted sense of community. To investigate this construct, 434 employees, managers and nonmanagers of both genders, from a public utilities corporation completed the Sense of Community Index (SCI), modified for the work community, and the Moos Work Environment Scale (WES). In terms of sense of community, men experienced a stronger sense of community than did women. Sense of community was significantly related to the length of time employees had worked for the company for male managers only. Even when the length of time with the corporation was removed, male managers had a higher sense of community than any other group. Female nonmanagers reported the lowest sense of community. "All correlations with relationship components, i.e., involvement, peer cohesion, and supervisor support, were positive and highly significant ($p < .001$) for men and women, managers and nonmanagers" (Pretty & McCarthy, 1991, p. 357). In addition, autonomy and task orientation were positive and significantly related to sense of community for men and women, managers and nonmanagers. For women, work pressure was significantly negatively related to sense of community for managers and nonmanagers, but for male managers, it was significantly positively related. Researchers also found "the more managers perceived their work to be under the control of upper management, the lower their sense of community" (p. 357). Work environment predictors of sense of community varied depending upon the subgroup. Male nonmanagers' sense of community was predicted by the amount of involvement and support they perceived from their supervisor. Male managers, however, were more influenced by the amount of peer cohesion and

involvement they perceived from their colleagues. Similar to their male nonmanager colleagues, female nonmanagers' sense of community was predicted first by supervisor involvement and second by peer cohesion rather than supervisor support. Female managers' sense of community was most influenced by the amount of supervisor support they perceived and second by the involvement of their colleagues.

Lambert and Hopkins (1995) conceptualized sense of community as a commitment to the organization and a perceived sense of organizational support, based on the McMillan and Chavis (1986) model. In this study, researchers examined occupational conditions that affected sense of community in the workplace. Specifically they postulated that a sense of community is affected by job characteristics, workplace relationships, and workplace policies that are supportive toward employees and their families. In this study, researchers administered questionnaires to a random sample of 884 employees at an engine-gasket manufacturing company in the mid-west. Of the 884 employees, 217 were supervisors. The remaining workers were blue collar (424) and white collar (243). The overall response rate to the questionnaire was 67.9%. The company employed about 2,000 workers; they were not unionized. The company had been family owned during its 75-year history. The company had been named one of the 10 best for whom to work and was always highly rated by *Working Mothers* magazine for being a responsive company. Findings indicated that for both men and women, "the extent to which workers' jobs require them to work well with others in the workplace is positively related to a sense of community" (p.

167). They also found that challenging work and opportunities for advancement are positively related to sense of community, but overwhelming job responsibilities hinder it, which held for both men and women. They also found that supervisor support and workgroup support were significantly related to men's sense of community, but not women's. This was inconsistent with their hypothesis that supportive workplace relationships would be important in women's sense of community as well. Additionally, input into decision making was particularly helpful in explaining sense of community among women. Researchers found that having relatives work for the same company detracted from sense of community for women. In terms of workplace policies, benefit appreciation helped explain both men and women's sense of community, but was significantly more important in explaining women's sense of community. Benefit use was not significantly related to sense of community for either women or men, and was still confirmed whether or not workers had children or were caring for an older or sick adult. When race was examined, it was statistically significant for neither women nor men. However, for African Americans, sense of community was negatively related to women. Researchers speculated that the lower response rate for African American men (45.9%) compared to women (71.5%) could have affected this outcome, in that more women chose to relay their experiences. If that "explanation has merit, then the interaction between race and gender should disappear when the results are adjusted for the difference in the response rates of African American men and women" (p. 171). In summary, Lambert and Hopkins (1995) found that for men and women, sense of community

is positively related to the fair allocation of promotions, challenging jobs, interaction among workers, and not being overwhelmed with work responsibilities.

Royal and Rossi (1996) viewed sense of community as involving "a complex set of transactions between an individual and a group. The functioning of a group affects the sense of community experienced by its members both directly, through their own interactions in the group, and indirectly, through their observations of interactions involving others in the group" (p. 402). They identified 11 elements of community including shared vision, shared values, shared purpose, trust, respect, caring, recognition, communication, participation, teamwork, and incorporation of diversity.

In this study, Royal and Rossi (1996) collected data from a social science research firm and three high schools. In the research firm, all employees from three offices were given the assessment instrument to complete. The three high schools were representative of three school districts in the San Francisco Bay Area. Each of the schools was affiliated with the Bay Area Region Coalition of Essential Schools and was involved in restructuring. In the schools, all staff members and a random sample of students received an assessment instrument to complete. For the research firm, the assessment instrument addressed individuals' attachment to the organization, job satisfaction, their intention to leave the organization, their internal work motivation, and their psychological health. For school staff, the instrument addressed job satisfaction, role conflict, role overload, role clarity, and psychological well-being. The school assessment

form also included items related to perceptions about the success of school reform efforts. Covariates included gender for both the firm and school staff, but not race. The workgroups in the schools were small and relatively homogeneous; for this reason, racial information was not collected as it might have led to identification of the participants. Researchers found no evidence of a relationship between tenure or status (job title) and sense of community. Only one of the high schools met the study qualifications as having a learning community and staff members were asked to identify whether they were affiliated with one of the learning communities. Affiliation with a learning community was found to be positively associated with sense of community for that school. In the research firm, "sense of community was positively related to indicators of organizational attachment, job satisfaction, and role clarity; sense of community was negatively related to indicators of intention to leave the organization, role conflict, role overload, and psychological distress" (pp. 409-410). In the three schools, "sense of community was positively related to indicators of job satisfaction and role clarity in two of the three sites and negatively related to indicators of role overload, role conflict, and psychological distress in one of the sites" (p. 410). Researchers also reported for all three schools that "staff members experiencing a higher sense of community at school were more likely to report that school reform activities have made the school a better place to work, brought staff together, and benefited student learning" (p. 410).

In another study, Royal and Rossi (1999) examined predictors of within-school differences in teachers' sense of community. This study was designed to

complement previous school-level research. In this study, data were collected through a survey of faculty members in three public high schools in the San Francisco Bay Area. The sense of community was assessed by the use of an 85-item measure, designed to capture the dimensions of the researchers' definition of the construct. Referents included relations with site administrators, colleagues, and students. The classes of predictors included

> time related variables (employment tenure in a school and time spent in interaction with other staff members and students), work arrangement variables (participation in mentor programs and team-teaching arrangements), and school organizational variables (perceived orderliness of student behavior and support for innovation). (p. 259)

The results indicated that tenure is positively related to sense of community with colleagues, unrelated to students, and negatively related to school and site administrators. Researchers speculated that the negative relationship between tenure and sense of community with school administrators may be the result of "battle scars" from past reform efforts. It was also noted that time spent with students was weakly positively related to teachers' sense of community with students, yet negatively related to their sense of community with colleagues and administrators. Possibly more time spent with students leaves less time to develop a sense of community with adults. There was a positive relationship between team teaching and sense of community with the school and site administrators. Also, perceived support for reform was positively related to teachers' sense of community with their colleagues and school and site administrators. In conclusion, Royal and Rossi also found that positive student

behavior is positively (weakly) related to teachers' sense of community within the school.

Burroughs and Eby (1998) studied sense of community in the workplace to identify the antecedents and consequences of sense of community. In this study, participants included 256 (160 women, 96 men) employees across 11 organizations holding a variety of job positions. The 11 participating organizations were made up of four large companies and seven small companies. Of the large companies, one was in the automotive industry, another was in a manufacturing industry, and the other two were in the office supply industry. The small companies employed less than 20 members each, and they included retail, distributor, and service businesses. The researchers considered using Royal and Rossi's (1996) Community Assessment Guide; however, the scale did not contain the dimensions of truth-telling and spiritual bonds that were inherent in Burroughs and Eby's definition of the construct. Therefore, this study involved the development of a measurement system, an assessment of its psychometric properties, and a test of the initial framework of antecedents and consequences of sense of community.

Burroughs and Eby (1998) reported that their definition of the dimensions of the construct had similarities to existing definitions found in the literature. However, they added truth-telling based on McMillan's (1996) recommendation that the community must make it safe for a member to tell the truth. This "requires the member to have personal emotional courage to take a psychological risk, and for the community to have empathy, understanding, and

caring" (p. 511). The researchers also added the dimension of spiritual bonds because they believed that individuals need to have an understanding of what enhances the human spirit and what about sense of community makes it spiritual. Thus, Burroughs and Eby's definition of sense of community includes the six dimensions of coworker support, emotional safety, sense of belonging, spiritual bond, team orientation, and truth-telling. "Due to . . . the exploratory nature of the present study, several classes of antecedent variables were examined, representing influences at the individual, group, and organizational level" (Burroughs & Eby, 1998, p. 513). While the variables were not all inclusive, they were representative of the variety of influences expected to impact sense of community. The antecedents included the individual characteristics of need for affiliation and tenure, and the group and organizational characteristics of size of workgroup and the number of employee acquaintances. The researchers also believed that transactional psychological contracts and relational contracts will be related to sense of community. "A transactional contract is defined as an economic exchange between employees and organizations characterized by precise obligations related to an unwritten contract" (p. 515). Relational contracts, unlike transactional, are not related to earning or obtaining something. They involve intrinsically motivated efforts, such as covenantal relationships that are deeper and are reciprocal between individual employees. The consequences of sense of community included job satisfaction and organizational citizenship behaviors (loyalty, civic virtue, altruism, courtesy). The background variables of age, sex, race, job status (full/part time), tenure, and job

type were also included in the questionnaire. Results revealed that both relational and transactional contracts had a strong correlation to sense of community. The researchers believed that the correlation with transactional contracts lends support to workplace benefits such as child care, fitness centers, and university courses. Another finding was that sense of community was also related to need for affiliation. These individuals may be supportive toward others with similar attitudes and needs and that this support may assist in strengthening one's sense of community. The researchers indicated that their findings supported the belief that communities are important because they function to link individuals to the larger social group while at the same time help to meet the needs of individuals through group attachments. "This idea that there is a relationship between the individual and the larger group, in this case the work organization, appears key to defining a sense of community" (Burroughs & Eby, 1998, p. 526).

Pretty, McCarthy, and Catano (1992) examined psychological environment and burnout by gender within the corporation. In this study, researchers used the Maslach Burnout Inventory (MBI), the Sense of Community Index (SCI), and the Psychosocial Work Environment Scale (WES). Researchers indicated that the literature has failed to find consistent gender-related differences in burnout. They believed this was surprising as women and men often do not have the same work experiences with regard to discrimination, pay, and advancement opportunities. This study examined whether men and women "share the same environmental vulnerabilities to burnout" (p. 702). The

two environmental characteristics of sense of community and the psychosocial climate of the workplace served as covariates of burnout in male managers and nonmanagers compared to their female counterparts.

In this study, 700 employees from a telecommunications company in eastern Canada were randomly selected from the company's master list of all full-time employees, both management and nonmanagement. A response rate of 62% of the sample was obtained. Respondents received the surveys in the company mail and were given time at work to complete the surveys in private. In addition, employees reported their gender, job classification (management/nonmanagement), tenure, and highest education. Male nonmanagers participated considerably less when compared to the other groups, which resulted in a smaller *N* and less statistical power for analyses of this group. The results indicated that "employees with high sense of community scores tended to report less depersonalization, less emotional exhaustion and more personal accomplishment. These relationships were consistent across all subgroups" (Pretty et al., 1992, p. 708). All correlations between sense of community and the components of burnout were significant "with the exception of the correlation with personal accomplishment in the female nonmanager group" (p. 708). Pretty, McCarthy, and Catano observed that when all groups experienced a lower sense of community they also experienced more exhaustion and depersonalization. Researchers reported "that sense of community . . . may moderate the relationship between burnout and indicators of commitment" (p.

710). Pretty, McCarthy, and Catano believed that "sense of community emerged as an important variable for consideration in burnout research" (p. 709).

Bishop, Chertok, and Jason (1997) studied sense of community with 133 male addicts and alcoholics, all of whom were members of a residential program for recovering alcoholics. In this study, researchers examined the relationship of sense of community to stress, social support, and hope. The sense of community scale was developed by the second author, Chertok, and focused on three elements: mission, connection, and reciprocal responsibility. Findings suggested that sense of community (full-scale) was most highly correlated with the social support subscale, belonging, defined as the perceived availability of others with whom to share activities. The second highest full-scale correlation was with the social support subscale, tangible (i.e., availability of material aid). Sense of community (full-scale) was also significantly related to the social support subscale, appraisal. This indicated the perceived availability of individuals with whom to share conversation. Bishop, Chertok, and Jason also found a negative relationship between the sense of community subscale, reciprocal responsibility—that is, members of an ongoing group who are mutually responsible to each other—and the hope subscale, pessimism. Finally, no relationship was found between sense of community and stress. The researchers proposed that this study served to measure the sense of community construct beyond the context of local residence.

Catano, Pretty, Southwell, and Cole (1993) studied sense of community as a predictor of different criterion measures of union participation. These

researchers used the criterion measures of political activity that included "voting, campaigning, contacting officials, talking politics, and working on public problems" (p. 333). They believed that participation in unions is analogous to participation in politics and they "proposed that sense of community would predict membership participation in various union activities" (p. 333). For this study, data were obtained by mail from 925 randomly selected union members, a 34% return rate. The only significant predictor to emerge was grievance filing. Therefore, the results indicated that workers with a high sense of community and a positive perception of the work environment may be less likely to file grievances.

Brodsky and Marx (2001) investigated the presence and operation of multiple senses of community in a job training and education center for underserved women in a large urban city in the northeast. The goal of the job center was to prepare women to obtain and retain employment with a living wage. The center offered job training, GED classes, psychosocial services, and family-related services to women leaving welfare as well as those working in nonliving wage jobs. The women were predominantly African American and were between the ages of 19 and 62. The researchers believed that exploration of multiple senses of community at the macro and subcommunity levels could enhance understanding of the community's operation and would have significance for enhancing positive outcomes in multicultural communities. In this study, 114 participants completed three revised versions of the Sense of Community Index (SCI) in two different administrations. In the original index, sense of community was measured in relation to respondents' neighborhood

community (McMillan & Chavis, 1986). In this study, the referent communities were the two Caroline Center communities, defined as the macro or overall Caroline Center community and the Caroline Center subcommunities, defined for students as their Phase 1 class and for staff as membership in the staff subcommunity. Therefore, respondents completed the first version of the SCI in reference to their home community, as well as two additional versions: one for the macrocommunity of Caroline Center and the second for either "Phase 1 class" or "staff at Caroline Center" for the subcommunity measures for students and staff, respectively. Results indicated that for both students and staff, there was a positive sense of community with the macrocommunity of Caroline Center. In terms of their home communities, both students and staff described a less than positive sense of community. Students also reported significantly higher sense of community for Caroline Center as a whole than for their subcommunity, although the subcommunity was in the positive range.

Findings of Brodsky and Marx's (2001) research suggested the existence of multiple senses of community at both the macro and subcommunity levels and that individuals can participate in a number of different communities at any one time. "Many of our greatest social challenges today revolve around building community in an increasingly diverse world" (p. 176). Historically,

> the United States was once a "melting pot," which melded our differences into a smooth blend. This is quite different from the current recipe, in which the United States looks much more like a stew, with each distinct flavor and texture adding to the whole while still maintaining its integrity. (pp. 176-177)

Brodsky and Marx (2001) maintained that some individuals fear that by promoting individual and group differences, the whole is somehow damaged. They further state that some members of society worry that sense of community at the subcommunity level will make the larger community less important and integral. In conclusion, Brodsky and Marx suggested that the macrocommunity respects and supports the contributions of the subcommittee while providing opportunities for subcommunities to connect. The subcommunity serves to tie individuals back to the larger community by providing needed local support. "Thus the answer to the 'problem' of diversity isn't combining and erasing differences, but promoting and recognizing the necessity of diversity as a rich, textured whole" (p. 177).

Davidson, Cotter, and Stovall (1991) studied the development of sense of community in relation to two types of social variables: one, the personality trait "need for affiliation" and two, the nuclear family variable "the number of siblings with whom one was raised." In this study, telephone interviews were conducted through random samples in 41 of 67 counties in Alabama. The survey included 236 adults, 91 men and 145 women. The researchers wanted to examine the personal predispositions or early social experiences that may cultivate the development of sense of community in adults. They "reasoned that both precursors promote later social contact basic to sense of community" (p. 817). The respondents were administered the Sense of Community Scale, the need-for-affiliation scale of the Personality Research Form–E, and were asked questions regarding demographics and the number of siblings with whom they

were raised until age 10. The researchers conducted multiple regression analysis with sense of community as the criterion variable and the predictor variables of sex, race, education, age, need for affiliation, and number of siblings. Davidson, Cotter, and Stovall (1991) found three significant predictors. "The direction of the significant relationships indicated that people who were older, who scored higher on the need for affiliation, or who were raised with more than one sibling had higher scores on the sense of community scale" (p. 818). Researchers reported that conclusions are limited due to the shortened versions of scales and interpretations should be specific to the referent group for sense of community, for which they used "city."

Pretty (1990) studied the relationship of sense of community to social climate characteristics within the context of a university residence community using the Sense of Community Index (SCI) and the University Residence Environment Scale (URES). In this study, a convenience sample of 102 male and female undergraduate residents of a university dorm was obtained when students were approached at random in the dorm lobby. There were several significant correlations between items on the two scales. Involvement and support were highly significant and intellectuality and order/organization were also significant. "Results of the stepwise multiple regression analysis indicated that the psychological sense of community in a university residence can be partially predicted from the amount of involvement, academic achievement, and support perceived by the students" (p. 62). Pretty concluded that this study "demonstrated that the relationship between psychosocial climate and sense of

community extends beyond the expected personal networks and support" (p. 64). It also demonstrated the expectations of the environment. Students not only conveyed perceptions of their interactions with others but also to what they perceived was expected of them as a group—that is, academic achievement. Pretty added that these conclusions added further support to Sarason's (1974) findings in his original theory of sense of community. The two dimensions recognized by Sarason included perceptions of similarity and interdependence as well as meeting expectations of the community. The roots of this concept extend to Murray (1938) when the social environment was initially described in terms of the individual's "need" and the environment's "press." In this study, involvement and support are the personal "needs" and academic achievement is the environment's "press," (Pretty, 1990). Pretty also believed that this study has implications for "engineering interventions in environments where the sense of community is deteriorating" (p. 65). Pretty also concluded "as more behavioral consultants realize the influence psychological sense of community has on people in specific settings, such as work environments (Klein & D'Aunno, 1986), it becomes essential to delineate the specific environmental characteristics that affect it" (p. 65).

Pretty, Andrews, and Collett (1994) examined adolescents' neighborhood and school sense of community. Participants in this study included males and females who ranged in age from 15 to 19. The purpose of this study was to investigate sense of community as an indicator of social environments in neighborhoods and schools. Researchers found that school sense of community

was not related to the number of years students attended the school. School sense of community was higher for students who indicated that most of their best friends were at school rather than in the neighborhood. School sense of community was significantly related to the number of supports and tangible assistance. Both neighborhood and school sense of community were negatively related to loneliness; however, school sense of community was the strongest predictor of loneliness. Researchers indicated that these findings suggest the importance of including ecological models as part of the pursuit for understanding the adolescent development process.

Pretty, Conroy, Dugay, Fowler, and Williams (1996) studied sense of community in relation to social support, loneliness, and well-being of adolescents. This study extends the work of Pretty et al. (1994) by examining the applicability of their findings across adolescents of all ages. In this study, 234 male and female adolescents, ages 13 to 18, were interviewed in informal social settings. Individuals were administered the Sense of Community Index (SCI), the Inventory of Socially Supported Behavior, and the Revised UCLA Loneliness Scale. Analyses indicated that social support and sense of community were distinctive aspects of the adolescent's community context. In addition, sense of community scores for neighborhood and school were significantly lower for older adolescents. "Findings suggest that the predictive ability of research models that have established relationships between mental health and social contexts using individual-level social support indices, may be improved with the inclusion of systems-level sense of community" (p. 375).

Lounsbury and DeNeui (1996) studied collegiate sense of community in relation to size of college and extroversion. Researchers believed that the vigor of the concept of sense of community is evident in the variety of ways in which it is related to disparate community structures and processes. In this study, the sense of community scale was administered to a nonrandom sample of 1,127 undergraduate students from 27 colleges varying in size of enrollment. "A one-way analysis of variance revealed that students from colleges with enrollments of less than 2,000 and enrollments between 2,000 and 9,999 had higher sense of community scores than students from colleges with enrollments of 10,000 to 19,000 and enrollments greater than 20,000" (p. 381). Students living on campus also had higher sense of community scores as did students who were members of a fraternity or sorority. Extroversion was found to be significantly correlated with sense of community.

Sense of community as a mediating variable was studied in a school setting by Battistich, Solomon, and Watson (1998). These researchers had as a goal to establish sense of community in the school "characterized by caring and supportive relationships among community members, opportunities to actively participate in and help influence community life, and shared goals and values" (p. 7). Their hypothesis was that sense of community would link program practices with student outcomes. In this study, a comprehensive program designed to promote sense of community was implemented in 12 elementary schools in six school districts over a four-year period. Researchers studied the effects of the program on students' social and ethical attitudes and behaviors. Through an

analyses of classroom-level data, findings "showed clear support for a model in which the effects of program practices on social-ethical outcomes for students were mediated through intervening effects on students' sense of the school as a community" (p. 1).

In another study, Newmann, Rutter, and Smith (1989) examined organizational factors that affected sense of efficacy, sense of community, and expectations in public high schools. The background factors in this study included school size, urbanicity, race, socioeconomic status, and students' ability; and the organizational factors included student behavior, administrative responsiveness, teachers' influence in decision making, encouragement of innovation, teachers' knowledge of other teachers' courses, teachers' helping each other, principal leadership, in-service programs, collaboration time, and staff development time. Findings showed that, except for school size, sense of community demonstrated an even greater role for organizational features than background factors. It was clearly shown that four organizational factors increased the variance in community, including administrator responsiveness, teachers' knowledge of other teachers' courses, student behavior, and teachers helping their colleagues. In addition, for efficacy, organizational factors appear to have significantly more powerful relationships than do background variables. In particular, this impact is due to two factors: "orderly behavior of students and the encouragement of innovation, although administrative responsiveness also enhances efficacy" (p. 234). While the researchers noted that "direct causality

cannot be inferred, the results suggest the potential of changing organizational features in high schools for reducing the alienation of teachers" (p. 221).

Summary of Research Findings

A number of conclusions can be confidently drawn from the research literature. Many researchers have argued that community in our current society is a relational occurrence. Feelings of belonging and social support increasingly are being found in various formal and informal groups, rather than in residential neighborhoods. Workplaces and schools constitute important communities where individuals can establish supportive relationships with others.

Because principals are responsible for providing the necessary leadership to respond to the continual changes and related demands for increases in academic achievement, their utilization of collaborative and relational skills is essential to these efforts. A sense of community may have important benefits for administrators, both personally and professionally. It can counteract the fragmentation of work and social isolation and provides personal support and collegiality that principals need to better manage a demanding and ever-changing school environment. Although causal inferences cannot be made, the job characteristics and workplace relationships of supervisor support, peer cohesion, input into decision making, job satisfaction, role clarification, and need for affiliation emerged as effective predictors of sense of community.

This review of the literature has shown that many studies have been done on community in varied settings. In most of these studies, employees or group members with strong affiliation to their community—however defined—were

more productive, experienced greater job satisfaction, and felt more loyalty to their organization. The increase in societal and educational responsibilities of schools require them to explore all concepts that have promise of improving teachers' and principals' working lives and their environment, especially their interactions with and influences on students. To further that end, the literature reviewed supports further examination of community as it relates to principals. Chapter three continues with the methodology for the study.

CHAPTER 3
METHODOLOGY

This chapter presents the mediational model including the questions, hypotheses, and analyses that guided this research study. In addition, this chapter includes a description of the population and sample, the instruments that were used, the University of Florida's Institutional Review Board process (Appendix A), and the procedures that were involved in the collection and analyses of data.

The purpose of this study was to examine principals' sense of community as a mediator between personal and district demographic variables and self-efficacy beliefs. Specifically, sense of community was examined as the mechanism through which two sets of antecedent variables (personal and district demographic variables) affected principals' self-efficacy beliefs. Each of the three hypotheses in this study was constructed to test for mediation.

Sense of community was determined by principals' self-reported responses to the Community Assessment Guide (Royal & Rossi, 1996). Personal demographic variables included gender, tenure (i.e., number of years worked as principal in the district), school level (elementary, middle, high) and race/ethnicity. District demographic variables included the size of the principals' referent group, and district enrollment group (i.e., small, medium, large, very large). Self-efficacy beliefs were determined by principals' self-reported

responses to the Principals' Self-Efficacy Questionnaire (Dimmock & Hattie, 1996).

For purposes of this study, the personal demographic variables of gender, tenure, school level, and race/ethnicity, and the district demographic variables of principals' referent group, and district enrollment group, served as exogenous variables. The principals' sense of community and self-efficacy beliefs served as endogenous variables.

This chapter presents a description of the methodology that was used to complete this investigation including the population and sample; instrumentation, including data on reliability and validity; data collection; and data analyses. In accordance with a conceptual framework for understanding sense of community in the workplace (Royal & Rossi, 1996), Bandura's (1997, 1995) theories on self-efficacy, and Baron and Kenny's (1986) conceptual model of mediating variables, three research hypotheses were tested.

Mediational Model

Mediational analysis has grown in the research literature as the positive aspects have become apparent to social and behavioral researchers. "Mediational analyses are important in the social and behavioral sciences because they concern mechanisms or processes that explain how or why one variable causes another" (Hoyle & Kenny, 1999, p. 195).

Baron and Kenny (1986) provided conceptual distinctions of mediating variables that served as the framework for this study. The researchers stressed the importance of understanding the differences between moderator and

mediator variables. "In general terms, a moderator is a qualitative or quantitative variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable" (p. 1174). In contrast, a variable "may be said to function as a mediator to the extent that it accounts for the relation between the predictor and the criterion" (p. 1176). Baron and Kenny (1986) use a path diagram as a model for illustrating the concept. The mediation model is diagrammed in Figure 3-1.

> This model assumes a three-variable system such that there are two causal paths feeding into the outcome variable: the direct impact of the independent variable (path *c*) and the impact of the mediator (path *b*). There is also a path from the independent variable to the mediator (path *a*). (p. 1176)

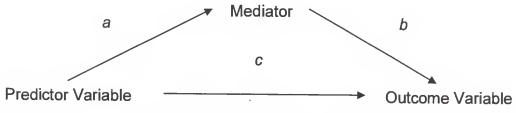


Figure 3-1. Mediational Model (Baron & Kenny, 1986).

A variable is functioning as a mediator when the following conditions occur: (a) the antecedent variables have significant positive relationships with the presumed mediator, (b) mediator variations account for variations in the outcome variable, (c) the antecedent variables are associated with the outcome variables and when adding the mediator, any previous associations between the antecedent and outcome variables are no longer significant. Mediation is strongest when there is no longer any relationship between the antecedent and outcome variables (Baron & Kenny, 1986).

The following hypotheses were constructed to test for mediation and guided this study. The mediating role of sense of community is hypothesized in the section below.

Hypothesis 1: Personal/district demographic variables are related to sense of community in the workplace.

Analysis: Hypothesis 1 was tested using regression analysis. Relationships among the mediating variable (sense of community) and the antecedent variables (personal/district demographic variables) were examined using multiple regression. Semi-partial correlations were used to interpret the strength of the association between the mediating variable (sense of community) and each of the antecedent variables. Squared semi-partial correlations reflect the amount or proportion of total variance in the mediating variable (sense of community) that was uniquely associated with each antecedent variable, when holding constant or controlling for the effects of the other antecedent variables. The regression model included the antecedent variables of gender, school level, race/ethnicity, and district enrollment group, each of which were treated as categorical variables. The model also included tenure, size of principals' referent group, and sense of community, each of which were treated as continuous variables. Each categorical variable was dummy coded into classifications in order to provide for comparison between group means for the reference group and the remaining groups. In this study, the reference groups included females, elementary level schools, White/Caucasian, and small size districts. The estimated regression model was $E(Y_1) = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 +$

b_6x_6; where Y_1 = sense of community; x_1 = gender (male coded 1, otherwise coded 0); x_2 = tenure; x_3 = school level (middle school coded 1, otherwise coded 0; high school coded 1, otherwise coded 0); x_4 = race/ethnicity (African American coded 1, otherwise coded 0; Hispanic coded 1, otherwise coded 0); x_5 = principals' referent group; x_6 = district enrollment group (medium coded 1, otherwise coded 0; large coded 1, otherwise coded 0; very large coded 1, otherwise coded 0).

Hypothesis 2: Personal/district demographic variables are related to principals' self-efficacy.

Analysis: Hypothesis 2 was tested using regression analysis. Relationships among the outcome variable (self-efficacy) and the antecedent variables (personal/district demographic variables) were examined using multiple regression. Semi-partial correlations were used to interpret the strength of the association between the outcome variable (self-efficacy) and each of the antecedent variables. Squared semi-partial correlations reflect the amount or proportion of total variance in the outcome variable (self-efficacy) that was uniquely associated with each antecedent variable, when holding constant or controlling for the effects of the other antecedent variables. The regression model included the antecedent variables of gender, school level, race/ethnicity, and district enrollment group, each of which were treated as categorical variables. The model also included tenure, size of principals' referent group, and self-efficacy, each of which were treated as continuous variables. Each categorical variable was dummy coded into classifications in order to provide for

comparison between group means for the reference group and the remaining groups. In this study, the reference groups included females, elementary level schools, White/Caucasian, and small size districts. The estimated regression model was $E(Y_2) = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6$; where Y_2 = self-efficacy; x_1 = gender (male coded 1, otherwise coded 0); x_2 = tenure; x_3 = school level (middle school coded 1, otherwise coded 0; high school coded 1, otherwise coded 0); x_4 = race/ethnicity (African American coded 1, otherwise coded 0; Hispanic coded 1, otherwise coded 0); x_5 = principals' referent group; x_6 = district enrollment group (medium coded 1, otherwise coded 0; large coded 1, otherwise coded 0; very large coded 1, otherwise coded 0).

Hypothesis 3: Principals' sense of community will mediate the relationship between personal/district demographic variables and self-efficacy beliefs.

Analysis: Hypothesis 3 was tested using regression analysis. Relationships among the outcome variable (self-efficacy), the antecedent variables (personal/district demographic variables), and the mediating variable (sense of community) were examined using multiple regression. Semi-partial correlations were used to interpret the strength of the association between the outcome variable (self-efficacy) and each of the other variables. Squared semi-partial correlations reflect the amount or proportion of total variance in the outcome variable (self-efficacy) that was associated with each variable, when holding constant or controlling for the effects of the other variables. The regression model included the antecedent variables of gender, school level, race/ethnicity, and district enrollment group, each of which were treated as

categorical variables. The model also included tenure, size of principals' referent group, sense of community, and self-efficacy, each of which were treated as continuous variables. Each categorical variable was dummy coded into classifications in order to provide for comparison between group means for the reference group and the remaining groups. In this study, the reference groups included females, elementary level schools, White/Caucasian, and small size districts. The estimated regression model was $E(Y_2) = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6 + b_7Y_1$; where Y_2 = self-efficacy; x_1 = gender (male coded 1, otherwise coded 0); x_2 = tenure; x_3 = school level (middle school coded 1, otherwise coded 0; high school coded 1, otherwise coded 0); x_4 = race/ethnicity (African American coded 1, otherwise coded 0; Hispanic coded 1, otherwise coded 0); x_5 = principals' referent group; x_6 = district enrollment group (medium coded 1, otherwise coded 0; large coded 1, otherwise coded 0; very large coded 1, otherwise coded 0); and Y_1 = sense of community.

Participants

In this section, the University of Florida's Institutional Review Board procedure and approval process is delineated and the population for the study and sample are described.

Institutional Review Board Procedure and Approval

Prior to the initiation of data collection for this research project, an Institutional Review Board protocol was submitted requesting approval of this study (Appendix A). The protocol specified the scientific purpose of the study, the research methodology, how the participants were to be recruited, any

potential benefits and anticipated risks to the participants, the proposed compensation, and the informed consent process. Following the Institutional Review Board's review, an approval to commence this study was obtained (Appendix B). The Informed Consent letter (Appendix C) delineated the following: that participation was voluntary and that participants had the right to withdraw from the study at any time without consequence, the purpose of the study, what the participants were asked to do, the time requirements, risks and benefits, compensation, and confidentiality. Specific contacts were provided in the event that participants had questions about the study or their rights as research participants.

Population

Because this study limited generalizations to public school principals in Florida, the population included all public elementary, middle, and high school principals in Florida employed during the 2001-2002 school year. The population included 2,714 public school principals. Of those, 59.4% (N = 1,612) were females and 40.6% (N = 1,102) were males. With regard to race, 73.2% (N = 1987) were White, 19.8% (N = 537) were African American, 6.7% (N = 182) were Hispanic, and fewer than 1% (N = 8) were either Asian/Pacific Islander or Native American/Alaskan Native. In addition, there were 3,648 public schools within the state of Florida. Of these schools, 45.4% (N = 1,656) were elementary, 12.8% (N = 465) were middle, 10.9% (N = 399) were high schools, 2.3% (N = 83) were combination schools, and the remainder of schools, 28.6%, (N =1,045) were categorized as either adult schools, Department of Juvenile Justice schools,

vocational education schools, charter schools, or exceptional student education schools (Florida Department of Education's Bureau of Education Information and Accountability Services, 2001).

There are 67 districts in Florida. The Florida Department of Education categorized each of its districts into enrollment groups of small (less than 7,000 students), medium/small (7,000–19,999 students), medium (20,000–39,999 students), large (40,000–100,000 students), and very large (greater than 100,000 students). Of the 67 districts, 37.3% (N = 25) were categorized as small districts, 20.9% (N = 14) were categorized as medium/small districts, 20.9% (N = 14) were categorized as medium districts, 10.4% (N = 7) were categorized as large districts, and 10.4% (N = 7) were categorized as very large districts (Florida Department of Education's Bureau of Education Information and Accountability Services, 2001).

Sample

In order to determine the appropriate sample size, it was estimated that 90 respondents were needed due to the number of variables under study. Because of an estimated return rate of 50%, this research study surveyed 180 potential respondents. Initially, the sample size for this study was 160 principals, but due to the number of variables under study, the sample size was subsequently increased to include 180 principals drawn from the population of public school principals in Florida. Prior to any data collection, it was necessary to obtain the Institutional Review Board's approval to increase the sample size under study from 160 principals to 180 principals (Appendix D).

Using a stratified design, the principals were selected randomly from four district enrollment groups (i.e., small, medium, large, very large) by three school levels (i.e., elementary, middle, high), thus making twelve categories. Fifteen principals from each of the 12 categories were selected. Because there were an insufficient number of principals in the small district enrollment group from which to select, the small and medium/small district enrollment groups were combined into the small category for purposes of random sampling and data analyses.

The survey packets were mailed to a total of 180 public school principals in Florida. None of the survey packets was returned as undeliverable. Within two weeks of the initial mailing, a total of 60 completed surveys were returned, yielding an initial response rate of 33%. A second set of 120 survey packets was mailed to the remaining non-respondents. The second mailing included the complete set of survey materials along with a cover letter requesting their participation in the study. The second mailing yielded an additional 34 surveys for a total of 94 completed surveys—an overall response rate of 52%. A response rate of at least 50% was considered adequate for analysis and reporting (Babbie, 1973).

Questions related to principals' personal and district demographic variables were contained in Part II of the Community Assessment Guide. Of the 94 principals participating in this study, 37.2% (N = 35) were females, and 62.8% (N = 59) were males, as shown in Table 3-1. The state average for principals included approximately 60% female and 40% male.

Table 3-1

Gender

Gender	N	Percent
Female	35	37.2%
Male	59	62.8%
Total	94	100%

Table 3-2 shows the race/ethnicity of the participating principals. Approximately 81% (N = 76) were White Non-Hispanic, 11.7% (N = 11) were African American Non-Hispanic, 6.4% (N = 6) were Hispanic, and 1.1% (N = 1) were Native American/Alaska Native, as compared to the state averages of approximately 73% White Non-Hispanic, 20% African American Non-Hispanic, 7% Hispanic, and 1% other categories. The variables of Native American/Alaska Native and Asian/Pacific Islander were excluded by the computer software program, SPSS, due to an insufficient number of cases.

Table 3-2

Race/Ethnicity

Race/Ethnicity	N	Percent
Native American/Alaska Native	1	1.1%
African American Non-Hispanic	11	11.7%
Hispanic	6	6.4%
White Non-Hispanic	76	80.9%
Total	94	100%

Principals were asked to identify the level of school for which they were currently serving as principal. The most frequent response was elementary school, with 38.3% (N = 36) identifying themselves as elementary principals. The other responses were 29.8% (N = 28) high school principals, 26.6% (N = 25) middle school principals, 4.3% (N = 4) combination middle/high principals, and 1.1% (N = 1) an alternative education principal. The state averages for principals included approximately 45% elementary, 13% middle, 11% high, 2% combination, and 29% other. In the analysis, the categories of middle/high and alternative education were excluded by SPSS due to an insufficient number of cases. Table 3-3 depicts the school level of participating principals.

The principal respondents in this study averaged 9.4 years of experience as a principal in their respective districts, ranging from 1 year to 39 years, as noted in Table 3-4.

Principals were asked to identify the district enrollment group in which they were currently serving as principal. The most frequent response was large, with 31.9% (N = 30) identifying themselves as serving a large district. The other responses were 28.7% (N = 27) from a small district, 25.5% (N = 24) from a medium district, and 13.8% (N = 13) from a very large district. The state averages for district enrollment groups included approximately 58% small, 21% medium, 10% large, and 10% very large. For purposes of analysis, due to an insufficient number of cases in the small and medium/small categories, both categories were collapsed into one district enrollment group entitled small. Table 3-5 depicts the district enrollment groups of participating principals.

Table 3-3

School Level

Level	N	Percent
Elementary School	36	38.3%
Middle School	25	26.6%
Combination Middle/High School	4	4.3%
High School	28	29.8%
Alternative Education	1	1.1%
Total	94	100%

Table 3-4

Total Number of Years' Experience as Principal in Their District

N	Mean	Median	Mode	Minimum Years	Maximum Years
94	9.4	7	7	1	39

Table 3-5

District Enrollment Group

District Size	N	Percent
Small	27	28.7%
Medium	24	25.5%
Large	30	31.9%
Very Large	13	13.8%
Total	94	100%

Because this study involved sense of community in the workplace, principals were asked to identify the number of principals in their referent group (number of principal colleagues), as well as the total number of principals in their district. The average number of principals in their referent group was 26 and in their district 65, as noted in Table 3-6.

Table 3-6

Principal Referents

Referents	N	Mean	Median	Mode	Minimum	Maximum
Area	94	26	20	12	2	70
District	90	65	36	19	2	130

Instrumentation

The constructs of sense of community in the workplace and principals' self-efficacy beliefs were measured by use of the Community Assessment Guide (Appendix E), and the Principals' Self-Efficacy Questionnaire (Appendix F). The explanatory variables (principals' personal and district demographic variables) were captured in the Background section (Part Two) of the Community Assessment Guide. Because this study utilized self-reports, the limitations of self-reported measures were identified.

Reliability

Scores from the sample of Florida principals who had completed the Principals' Self-Efficacy Questionnaire and the Community Assessment Guide were used to estimate the internal consistency reliability of the instruments. "Test reliability refers to the consistency, stability, and precision of test scores"

(Gall, Borg, & Gall, 1996, p. 197). Obtained scores on tests always contain some amount of measurement error. A score with high measurement error is described as unreliable and a score with little error is considered reliable. The reliability of scores is described statistically through a reliability coefficient (Gall, Borg, & Gall, 1996).

Cronbach's coefficient alpha was used to estimate the internal consistency reliability for both instruments in this study. Using SPSS v11.0, the reliability estimates for the Community Assessment Guide and the Principals' Self-Efficacy Questionnaire were estimated. For this study, the analysis of internal consistency for the Principals' Self-Efficacy Questionnaire yielded an alpha of .88. The Community Assessment Guide yielded an alpha of .97. The closer the coefficient is to 1.00 the more the test is free of measurement error. The reliability estimates for both instruments were adequate for this study. Cronbach's Alpha for the item total correlations is reported in Table 3-7.

Table 3-7

Reliability Coefficients

Instrument	Number of Items	Cronbach's Alpha
Community Assessment Guide	45	.97
Principals' Self-Efficacy Questionnaire	12	.88

Community Assessment Guide

The social and emotional support that individuals once drew from family and neighbors is currently being obtained within the work setting to a greater degree. Royal and Rossi (1996) present a conceptual framework for understanding sense of community in the workplace and their Community Assessment Guide was used to measure principals' sense of community in the workplace. The Community Assessment Guide included 45 items. All items of the guide use a 6-point Likert-type strongly disagree-strongly agree response format. The 45 items represented 11 community elements across three clusters (mutual obligation and support, interdependence and inclusiveness, direction and purpose). In this study of sense of community, each respondent was asked to answer the 45 questions, using principal colleagues as their referent group.

Royal and Rossi's (1996) conceptualization of community was initially derived from John Gardner's work on the critical components of healthy and vital communities. Following a review of the literature, the researchers conducted a variety of activities to refine their conceptualization of community. Anecdotal reports of community-related experiences were obtained from individuals across the country representing over 40 different workplaces. Subsequently, focus group discussions were held with administrators, teachers, and students from 14 public and private high schools. An independent firm specializing in focus group research conducted the sessions. Drawing on the focus groups as well as input from business, educational, and community leaders, a conceptualization of community was developed. Royal and Rossi found their conceptualization of

community to be applicable to a variety of workplace settings, including schools. The researchers identified 11 elements of community that included shared values, shared vision, shared sense of purpose, caring, trust, teamwork, incorporation of diversity, communication, participation, respect, and recognition.

In terms of incorporation of diversity, when examined from the perspective of the individual, Royal and Rossi (1996) noted that "individuals might well be expected to feel a greater sense of community with a group if what is unique about them is accepted and valued by the group than if it is rejected or disparaged" (p. 401). They also added that workplaces and schools are becoming increasingly more diversified concluding that if a sense of community is to be cultivated, the challenges of heterogeneity will have to be addressed in workplaces and schools. These authors believe that

> sense of community involves a complex set of transactions between an individual and a group. The functioning of a group affects the sense of community experienced by its members both directly, through their own interactions in the group, and indirectly, through their observations of interactions involving others in the group. (p. 402)

Across the 11 elements, the measure also takes into account the various referents that teachers may have for community (principals, teachers, staff members from other departments, students). Klein and D'Aunno (1996) argue that individuals' sense of community may vary within organizational settings, depending upon the referent cited.

In an effort to validate the items as interpretable and to ensure that they adequately captured the concepts they were designed to address, Royal and Rossi conducted a series of small-scale pilot tests in six firms. In each pilot test,

efforts were made to incorporate a diverse group of individuals representing different cultural backgrounds and educational levels. Subsequent to the initial pilot tests, the instrument was modified and tested again in a series of small-scale trials. Following the small-scale trials, the researchers administered the workplace instrument to employees of a local manufacturing firm and faculty and staff at two colleges. The school forms were used with school staff (identified as administrators, teachers, and support staff) and students in high schools across the country as part of a national evaluation sponsored by the U.S. Department of Education's Office of Educational Research and Improvement. After the large-scale pilot tests, an analysis was conducted to assess the extent to which the researchers had created distinct and internally consistent subscales to measure each of the dimensions. Items that failed to correlate highly with their own subscales and those that correlated more highly with subscales other than their own were discarded along with other redundant items.

The reliability was assessed by computing split-half reliability estimates for the three instruments (workplace form, school staff form, student form). "In tests involving the workplace form, the school staff form, and the student form, correlations of at least .87 have been found between the split forms, suggesting the shorter forms are exceedingly reliable" (Royal & Rossi, 1996, p. 403). Correlations based on the Spearman-Brown formula yield reliability estimates greater than .93 for the complete instruments. Royal and Rossi (1996) added that "the high reliability estimates obtained for each of the whole forms reveal that although the forms are multidimensional . . . the items nonetheless reflect . . . the

same construct" (p. 404). They are also confident in the stability of these estimates across different populations.

The conceptual framework and measurement instruments were based on a review of the social science literature on community, critical incident survey of individuals in companies, focus groups with school staff members and students, the input from educational, business, and community leaders, and feedback from participating individuals in each of the pilot tests. Royal and Rossi (1996) worked to ensure that their definition of community as well as each of the instrument items captured the dimension of the construct. The researchers have confidence that the instruments have content validity.

Royal and Rossi (1996) gathered criterion validity from three sources. First, the workplace instrument was administered in a local community college district, comprised of two college campuses. Based on observations and small group discussions, the chancellor of the college district felt that the levels of sense of community differed significantly between the two college campuses. It was found that scores for one college were significantly higher than the scores for the other college, as expected. Second, criterion validity of the workplace instrument was also gathered from administration in a manufacturing company. As expected, when community scores at the company were analyzed, a stronger sense of community was noted for individuals demonstrating a cooperative spirit and trust in the organization. Third, staff and student forms were administered in school sites across the country following the same procedures as previously

mentioned. Results from the survey assessments regarding criterion validity were consistent with impressions drawn from site visits.

A principal factor analysis involving the 85 component items was conducted. A three-factor solution was most appropriate based on a scree plot of the eigenvalues. Items relating to teachers' relations with administrators loaded on the first factor, items relating to teachers' relations with other teachers (their colleagues) loaded on the second factor, and items relating to teachers' relations with students loaded on the third factor. "The factor-analytic results highlighted the multiple senses of community that teachers may experience in schools through their interactions with students, peers, and school administrators" (Royal & Rossi, 1999, p. 262).

Personal and District Demographic Variables

Part two of the Community Assessment Guide captured the personal demographic variables of gender, tenure (number of years as a principal within the district), school level (elementary, middle, high), and race/ethnicity; and the district demographic variables of size of principals' referent group, and district enrollment group (small, medium, large, and very large). Data obtained from Part two of the Community Assessment Guide were used to describe the sample as well as to provide descriptive statistics for each of the explanatory variables.

Principals' Self-Efficacy Scale

Principals' self-efficacy in coping with change is important in the area of school-based management. The Principals' Self-Efficacy Questionnaire developed by Dimmock and Hattie (1996) was used to measure principals' self-

efficacy beliefs. This scale measures the self-efficacy of principals when coping with change in the context of restructuring. The scale includes 12 items or vignettes representative of the wide range of tasks that principals confront. The vignettes covered situations in the following six areas: school improvement planning; teaching, learning, and curriculum; managing staff; budgeting; managing parents; and managing the environment. Each of the six areas contained two vignettes, and principals were asked to rate their confidence, by using a 0 to 10 confidence scale, in securing a successful resolution to each vignette. The scores from the instrument's "twelve vignettes can be combined to form a self-efficacy score relating to principals' perceptions of coping with change" (p. 74).

Following the assumption that self-efficacy is situational, a generic self-efficacy test cannot be used in multiple situations. There are, however, common underlying principles in developing self-efficacy tests for principals. Dimmock and Hattie (1996) contended that

> the validity of such tests is improved when they are grounded in situations which include the following: the unidimensional nature of self-efficacy as a concept; the relation of self-efficacy to a wide range of tasks that principals confront; the situations (test items) generated should relate to tasks, decisions or problems that require maximum self-efficacy for success; such situations should have both positive and negative aspects; they should reflect differing levels of task difficulty; and they should allow principals to indicate the relative strength rather than a wholesale presence or absence of self-efficacy. (p. 66)

In the initial stage of scale development, Dimmock and Hattie (1996) solicited written descriptions of challenging and difficult tasks from 20 principals selected at random. Principals identified those problems and decisions they had

recently confronted that had presented as challenging for them in identifying a solution. Principals were also asked to identify challenging situations that related to restructuring and management of change. Fifty-two problem situations were identified from the principals' responses. The 52 responses were grouped into six dimensions, each of which represented a major area of responsibility for the principal during restructuring. "The six dimensions were: school development planning; managing teaching; learning and curriculum; managing staff; budgeting; managing parents; and managing the environment of the school" (p. 67). For each of the six dimensions, a variety of vignettes were created based on the 52 presenting situations. The "vignettes were designed to suggest the need for major coping strategies, and to test the levels of principals' self-efficacy required to accommodate each dilemma" (p. 67). The final instrument consisted of 12 vignettes, two for each of the six dimensions. The instrument is designed so that the principal responds to each vignette, prefaced with "how confident would you be of securing a successful resolution of this situation," by circling the appropriate point on the 0 to 10 CONFIDENCE scale (ranging from 0 labeled as "totally unconfident," 5 "moderately confident," to 10 "totally confident").

Dimmock and Hattie (1996) sampled 50 principals (25 elementary and 25 secondary) across rural and urban schools in Australia. The sample also included principals from small as well as large schools. In order to increase external validity, the researchers sampled deliberately for heterogeneity. They utilized the procedures of factor analysis, estimates of reliability, and multiple

regression to assist in the assessment of the instrument's items. The results of the factor analysis indicated that

> only one factor was required to adequately reproduce the original covariances among the vignettes. The loadings on the first factor were all substantial and reasonably uniform, the uniqueness was uniformly small, and finally, the goodness of fit statistics were excellent. (p. 70)

In terms of reliability, because there is only one factor, an estimate of reliability was calculated using Cronbach's alpha. The alpha was .84, "which indicates that the total score across the vignettes can be used meaningfully to investigate moderators and other group differences" (p. 72).

Procedures

Written permission to use the Community Assessment Guide was obtained from the researcher and author, Dr. Robert J. Rossi (Appendix G). The Community Assessment Guide was developed by Dr. Robert J. Rossi and associates. Dr. Rossi developed and tested this community assessment instrument for use in workplaces and schools while with the American Institutes for Research, Palo Alto, CA. A copy of the signed Community Assessment Guide Student-User Agreement form is found in Appendix H. In return, Dr. Rossi has requested a copy of the final product of this research.

Written permission was also obtained from Dr. John Hattie, University of Auckland, Auckland, New Zealand, to use the Principals' Self-Efficacy Questionnaire. A copy of written correspondence from Dr. Hattie giving permission to use the instrument is located in Appendix I.

After the 180 public school principals were selected using a stratified design sampling method, each was sent a package of documents relevant to the

study. The documents included an introductory letter explaining the purpose of the study as well as giving Informed Consent (printed on NCR paper); the participants were requested to sign and return the white copy of Informed Consent, maintaining the yellow copy for their records. Also included in the research materials were copies of the study instruments, the Community Assessment Guide and the Principals' Self-Efficacy Questionnaire; a gift card preference form (Appendix J); and two pre-addressed stamped envelopes (one envelope to return the survey instruments and one envelope to return the signed informed consent and the gift card preference form). The gift card, as explained in the introductory letter, served as a small compensation to the principals for participating in the study. The gift card had a $15 value and the participants were given a gift card preference form to complete and return at the time they returned the survey instruments. The gift card preference form contained a list of stores and restaurants from which the research participants were able to select. The residential addresses for the population of Florida public school principals during the 2001-2002 school year had been requested and obtained from the Department of Education's Office of Education Information and Accountability Services (Appendix K).

The introductory letter explained the purpose of the study and asked the potential respondents for their participation. The study participants were directed to return the completed questionnaires in one of the stamped envelopes provided. At the same time they returned the questionnaires, respondents were also asked to mail the white copy (researcher's copy) of their informed consent in

the second envelope provided; this form served as their agreement to participate in the study. Participants were instructed to retain the yellow copy (participant's copy) of the informed consent for their records. The process requesting that the participants return the signed consent form and the survey questionnaires in separate envelopes, enabled the researcher to know the identity of the participants without matching any individual to a completed questionnaire. Respondents were also asked to enclose the gift card preference form in the envelope along with their informed consent. To achieve the desired response rate, additional mailings were conducted in accordance with methodological literature on follow-up mailings.

Babbie (1973) noted that follow-up mailings are particularly helpful for increasing return rates in this form of survey research. Timely attention to follow-up mailings is essential because the longer the delay in responding, the less likely the potential respondent is to respond at all. Babbie also found that "two or three weeks is a reasonable time space between mailings" (p. 164). Babbie illustrated the importance of timing and tabulating return rates for each mailing. He noted that within the first two weeks "approximately 40 percent of the questionnaires are returned; within two weeks after the first follow-up, an additional 20 percent are returned; and within two weeks after the final follow-up an additional 10 percent are received" (p. 164).

For follow-up mailings, by matching the informed consent forms received against the sample list, the researcher was able to determine which individuals in the sample had not responded, the assumption being that those who had

returned the consent form had also returned a completed questionnaire. Only those respondents who had not returned a copy of the informed consent were sent follow-up mailings. The same procedures used in the initial mail-out were followed for the subsequent mailing with the addition of a cover letter to the principal requesting their participation (Appendix L). After the research participant returned a signed copy of the informed consent and gift card preference form, a thank you card and gift card were sent to the responding principals (Appendix M).

In terms of acceptable return rates, Babbie (1973) noted that "a response rate of at least 50 percent is adequate for analysis and reporting" (p. 165). A review of educationally related dissertations and research studies found a wide range of response rates. Doud (1989) and Doud and Keller (1998), in their 10-year national studies of K-8 principals, reported response rates of 34.5% and 44.1%, respectively. In addition, an average response rate of 60% was noted among local or state-level dissertations. For purposes of this study, a 50% response rate was expected.

All responses from the survey were analyzed using the SPSS v11.0 for Windows computer software program to report the statistical results for the study.

Data Analysis

Data analysis of principals' personal and district demographic variables was conducted using SPSS v11.0 for Windows (Norušis, 2002). This produced descriptive statistics, including measures of central tendency, measures of variability, including variance and standard deviation, and correlations.

The sense of community scores were computed by averaging across their responses to each of the six-point items. Items were reversed scored where necessary to ensure that the most positive response was assigned a value of six and the least positive response a value of one.

Examining simple statistics first helped to ensure that the variables were reacting the way they were expected to react. The violations of assumptions of regression (linearity, homogeneity of variance, normality, and independence of errors) were checked through the use of residual plots, or scatterplots. Residuals represent the vertical distance from the regression line and some specified point. Scatterplots provide a visual inspection of the relationship among variables (Bobko, 2001).

To examine the relationships among all variables, a series of multiple regression analyses, and analysis of variance (ANOVAS) were estimated to determine relationships among variables as well as to determine how well the model fit the data. Model building is the process of selecting a model that best fits the data and then comparing the patterns found in the data with the patterns predicted by the model. The aim of the specific hypothesis is to test whether specific variables were significantly associated with the response variable. The alpha level was set at $p = .05$ for all tests.

Exogenous variables are variables "with causes from outside the theory under investigation" (Dooley, 1999, p. 248). Dooley also stated that "causal arrows lead to endogenous variables, the presumed outcomes of prior causes. Endogenous variables may also cause other endogenous variables, in which

they serve as intervening variables" (pp. 248-249). In this study, principal demographic characteristics, and district demographic characteristics were exogenous variables, and sense of community and self-efficacy beliefs were endogenous variables. A series of multiple regression analyses were used to determine the influence of sense of community (the intervening or mediating variable) on self-efficacy beliefs.

In addition to examining the relationships among the variables, an overall fit of the model to the data was estimated. The analysis determined "the extent to which all of the causally prior variables explain the variation in the endogenous variables" (Dooley, 1999, p. 249). The information is provided for each outcome variable through R^2 and the residual. R is a measure of the best association of an outcome variable with the explanatory variables and R^2 denotes the proportion of information in the outcome variable explained by all of the explanatory variables. "Thus a good fit between model and data will result in a large R^2 (approaching a value of 1) and a small residual path coefficient (approaching zero) for each endogenous variable" (p. 249).

This chapter specified the research questions, hypotheses, and models that were examined. In addition, a description of the population and sample; and instruments that were used in the study was provided. This chapter included information on the Community Assessment Guide and the Principals' Self-Efficacy Questionnaire instruments in terms of their development, intended purposes, and reliability and validity data. The University of Florida's Institutional

Review Board procedure and approval process as well as the process for data collection and analyses was reviewed.

Chapter 4 presents the results of the study and analysis of data.

CHAPTER 4
RESULTS AND ANALYSIS OF DATA

The purpose of this study was to examine principals' sense of community as a mediator between personal and district demographic variables and self-efficacy beliefs. Personal demographic variables (antecedent variables) included gender, tenure (the number of years worked as a principal in the district), school level (elementary, middle, high), and race/ethnicity. District demographic variables (antecedent variables) included the size of principals' referent group and district enrollment group (small, medium, large, and very large). A referent group includes the individuals with whom one aligns or associates. In this study a principal's referent group is made up of principals of other schools of the same or different level (e.g., elementary or middle) in the same area of the district.

Sense of community was calculated from total scores derived from principals' responses to the Community Assessment Guide (Royal & Rossi, 1996). Self-efficacy was calculated from total scores derived from principals' responses to the Principals' Self-Efficacy Questionnaire (Dimmock & Hattie, 1996). It was believed that sense of community would function as a mediator through which personal and district demographic variables would influence principals' self-efficacy when coping with change. The self-efficacy instrument included a description of tasks presented in 12 vignettes covering situations in the areas of school improvement planning; teaching, learning, and curriculum;

managing staff; budgeting; managing parents; and managing the environment. The method for assessing mediation was guided by Baron and Kenny's (1986) mediational model. This chapter presents the results of the analysis of data collected for this study. The significance level was set at alpha = .05 for all of the analyses.

Mediation Model Analyses

Because the purpose of this study was to determine the extent to which sense of community mediated the relationships between two sets of antecedent variables and the outcome variable (self-efficacy), this study consisted of three hypotheses guided by Baron and Kenny's (1986) model for testing mediation. In order to test for mediation, a series of regression equations must be estimated and tested.

> To establish mediation, the following conditions must hold: First, the independent variable must affect the mediator in the first equation; second, the independent variable must be shown to affect the dependent variable in the second equation; and third, the mediator must affect the dependent variable in the third equation. If these conditions all hold in the predicted direction, then the effect of the independent variable on the dependent variable must be less in the third equation than in the second. (Baron & Kenny, 1986, p. 1177)

In this study, the personal demographic variables of gender, tenure, school level, and race/ethnicity served as a set of antecedent variables and the district demographic variables of size of principals' referent group and district enrollment group, served as a second set of antecedent variables.

The first step was to test whether there were statistically significant direct effects between the antecedent variables and the mediating variable of sense of community (Hypotheses 1). If the direct effects were statistically significant in the

first step, then the first condition of mediation was met. The second step was to test whether there were statistically significant direct effects among the antecedent variables and the outcome variable of self-efficacy (Hypotheses 2). If the direct effects were statistically significant in the second step, then the second condition of mediation was met. The third step was to test whether there were statistically significant direct effects between the outcome variable (self-efficacy) and the mediator (sense of community) as well as between the outcome variable (self-efficacy) and the antecedent variables (Hypothesis 3). If the direct effects tested in step two are no longer statistically significant after including the mediating variable in step three, then the final condition of mediation was met. The following hypotheses were constructed to test for mediation and guided this study. The mediating role of sense of community is hypothesized in the section below.

Research Hypotheses Analysis

Hypothesis 1: Personal/district demographic variables are related to sense of community.

Analysis: Hypothesis 1 was tested using regression analysis. To test the first condition of mediation using two sets of antecedent variables (personal and district demographic variables), a multiple regression was conducted to examine the degree of association among the antecedent variables and the mediating variable.

When testing a mediational model, the first step for testing condition one, is to determine whether there are statistically significant direct effects among the

antecedent variables and the mediating variable. For this hypothesis, the regression equation included two sets of antecedent variables, the personal demographic variables of gender, tenure, school level, and race/ethnicity as well as the district demographic variables of size of principals' referent group and district enrollment group. The mediator (sense of community) was regressed on the antecedent variables. All categorical variables (gender, race/ethnicity, school level, and district enrollment group) were dummy coded for the analyses.

Multiple regression coefficients permit the researcher to tease out statistically the effects of the other antecedent variables. The contribution of each effect was evaluated by testing its statistical significance with *F* statistical tests. In this regression, the R^2 of .172 was not statistically significant, $F(10,83) = 1.718$, $p = .090$. Because the association among the antecedent variables and the mediating variable was not statistically significant in hypothesis 1, the first condition of mediation was not met. The estimated model parameters are shown in Table 4-1.

The resultant estimated regression model was Sense of Community = 239.351 (intercept) + -20.942 (gender) + .833 (tenure) + -10.293 (middle school) + 7.716 (high school) + 12.470 (African American) + 13.167 (Hispanic) + .440 (medium district) + -5.248 (large district) + -1.935 (very large district) + -.294 (principals' referent group).

Hypothesis 2: Personal/district demographic variables are related to principals' self-efficacy beliefs.

Table 4-1

Model Summary, Unstandardized Regression Coefficients, Standardized Regression Coefficients, t-test Statistics, and Semi-Partial r-squares for Hypothesis 1

Model Summary			*df*	*F*	*p*	R^2
			(10,83)	1.718	.090	.172
Variables	*b*	Standard Error	*β*	*t*	*p*	r^2
Intercept	239.351	9.911		24.151	.000	
Principals' Referents	-.294	.239	-.165	-1.229	.223	.015
Medium District	.440	9.152	.006	.048	.962	.000
Large District	-5.248	9.138	-.079	-.574	.567	.003
Very Large District	-1.935	14.536	-.021	-.133	.894	.000
African American	12.470	10.774	.129	1.157	.250	.013
Hispanic	13.167	13.325	.103	.988	.326	.010
Tenure	.833	.472	.190	1.764	.081	.031
Middle School	-10.293	8.288	-.146	-1.242	.218	.015
High School	7.716	8.571	.113	.900	.371	.008
Gender	-20.942	6.911	-.325	-3.030	.003*	.092

Note: *p< .05

Analysis: Hypothesis 2 was tested using regression analysis. To test the second condition of mediation using two sets of antecedent variables (personal and district demographic variables), a multiple regression was conducted to examine the degree of association among the antecedent variables and the outcome variable.

When testing a mediational model, the second step for testing condition is to determine whether there are statistically significant direct effects among the antecedent variables and the outcome variable. For this hypothesis, the regression equation included two sets of antecedent variables, the personal demographic variables of gender, tenure, school level, and race/ethnicity as well as the district demographic variables of size of principals' referent group and district enrollment group. The outcome variable (self-efficacy) was regressed on the antecedent variables. All categorical variables were dummy coded for the analysis.

The contribution of each effect was evaluated by testing its statistical significance with F statistical tests. In this regression, the R^2 of .167 was not statistically significant, $F(10,83) = 1.660$, $p = .104$. Because the association among the antecedent variables and the outcome variable was not statistically significant in hypothesis 2, the second condition of mediation was not met. The estimated model parameters are shown in Table 4-2.

The resultant estimated regression model was Y (self-efficacy) = 101.309 (intercept) + -7.539 (gender) + .183 (tenure) + -1.720 (middle school) + -1.031 (high school) + 10.301 (African American) + 1.182 (Hispanic) + 1.087 (medium

Table 4-2

Model Summary, Unstandardized Regression Coefficients, Standardized Regression Coefficients, t-test Statistics, and Semi-Partial r-squares for Hypothesis 2

Model Summary			*df*	*F*	*p*	R^2
			(10,83)	1.660	.104	.167
Variables	*b*	Standard Error	*β*	*t*	*p*	r^2
Intercept	101.309	3.973		25.501	.000	
Number of Principal Referents	-.133	.096	-.187	-1.390	.168	.019
Medium District	1.087	3.669	.038	.296	.768	.001
Large District	.637	3.663	.024	.174	.862	.000
Very Large District	3.942	5.827	.109	.677	.501	.005
African American	10.301	4.319	.266	2.385	.019*	.057
Hispanic	1.182	5.341	.023	.221	.825	.000
Tenure	.183	.189	.104	.969	.335	.009
Middle School	-1.720	3.322	-.061	-.518	.606	.003
High School	-1.031	3.436	-.038	-.300	.765	.000
Gender	-7.539	2.771	-.293	-2.721	.008*	.075

Note: *p< .05

district) + .637 (large district) + 3.942 (very large district) + -.133 (principals' referent group).

Hypothesis 3: Principals' sense of community will mediate the relationship between personal/district demographic variables and self-efficacy beliefs.

Analysis: Hypothesis 3 was tested using regression analysis. To test the third condition of mediation using two sets of antecedent variables (personal and district demographic variables), a multiple regression was conducted to examine the relationships among the antecedent variables, the mediator, and the outcome variable. To test this hypothesis, the outcome variable was regressed on both the antecedent variables and on the mediator variable.

The outcome variable (self-efficacy) was regressed on both sets of antecedent variables (personal demographic variables of gender, tenure, school level, and race/ethnicity; and district demographic variables of size of principals' referent group and district enrollment group) and on the mediator variable (sense of community).

The contribution of each effect was evaluated by testing its statistical significance with F statistical tests. The R^2 of .279 was statistically significant, $F(11,82) = 2.888$, $p = .003$, suggesting that the antecedent variables and the mediator were jointly associated with 27.9% of the self-efficacy variance.

The results indicated, that after controlling for the effects of the other antecedent variables, there were two statistically significant relationships: sense of community ($b = .147$, $t(82) = 3.578$, $p = .001$); and African American ($b = 8.464$, $t(82) = 2.078$, $p = .041$). Specifically, self-efficacy scores increased by

.147 for each unit increase in sense of community. Also in testing hypothesis 3, the self-efficacy scores for African Americans tended to be 8.4 points higher than the referent group (White/Caucasian). However, because only 11 African American principals participated in this study, a small sample size may have presented a threat to the statistical conclusion validity of the study. Cook and Campbell (1979) cautioned that a small sample size may affect the ability to make inferences about the relationships between the variables. The estimated model parameters are shown in Table 4-3.

The resultant estimated regression model was Y (self-efficacy) = 66.046 (intercept) + -4.454 (gender) + .061 (tenure) + -.204 (middle school) + -2.168 (high school) + 8.464 (African American) + -.757 (Hispanic) + 1.023 (medium district) + 1.410 (large district) + 4.227 (very large district) + -.090 (principals' referent group) + .147 (sense of community). All categorical variables were dummy coded for the analysis.

Although the overall model in step three was statistically significant and it accounted for 27.9% of the variance in self-efficacy, condition three of the model was not met because the direct effects of the antecedent variables on the outcome variable in step two were not statistically significant. There was also not a significant association of the variables tested in step one.

Follow-up Analysis

An examination of the squared semi-partial correlations led to the decision to remove the district demographic variables, leaving the personal demographic

Table 4-3

Model Summary, Unstandardized Regression Coefficients, Standardized Regression Coefficients, t-test Statistics, and Semi-Partial r-squares for Hypothesis 3

Model Summary			*df*	*F*	*p*	R^2
			(11,82)	2.888	.003*	.279
Variables	*b*	Standard Error	*β*	*t*	*p*	r^2
Intercept	66.046	10.532		6.271	.000	
Number of Principal Referents	-.090	.090	-.126	-.994	.323	.009
Medium District	1.023	3.433	.036	.298	.767	.001
Large District	1.410	3.434	.053	.411	.682	.002
Very Large District	4.227	5.453	.117	.775	.440	.005
African American	8.464	4.074	.219	2.078	.041*	.038
Hispanic	-.757	5.027	-.015	-.151	.881	.000
Tenure	.061	.180	.035	.336	.737	.001
Middle School	-.204	3.137	-.007	-.065	.948	.000
High School	-2.168	3.231	-.080	-.671	.504	.004
Gender	-4.454	2.732	-.173	-1.630	.107	.023
Sense of Community	.147	.041	.369	3.578	.001*	.112

Note: *p< .05

variables for follow-up analysis. The mediational model was tested a second time using only the variables of gender, tenure, school level, and race/ethnicity.

Condition 1 Follow-up Analysis

To test condition one for the reduced model, the mediating variable (sense of community) was regressed on one set of antecedent variables (gender,tenure, school level, and race/ethnicity). The R^2 of .135 was statistically significant, $F(6,87) = 2.270$, $p = .004$, suggesting that the antecedent variables (personal demographic variables) were jointly associated with 13.5% of the sense of community variance. Condition one was met for the reduced model. The estimated model parameters are shown in Table 4-4.

However, the results indicated that after controlling for the effects of the other antecedent variables, there was only one statistically significant relationship: Gender ($b = -19.036$, $t(87) = -2.791$, $p = .006$). The mean difference for gender ($b = -19.036$) indicated that sense of community scores for males tended to be 19 points lower than sense of community scores for females, the reference group.

In this analysis, the squared semi-partial correlation for gender is $r^2 = .077$, considered to be a small to medium effect size (Cohen & Cohen, 1983). The squared semi-partial correlation represents the proportion of total variance (of the outcome variable) that is uniquely associated with any one antecedent variable over and above that of the others. Therefore, 7.7% of the total variance of sense of community is uniquely associated with gender. Small effects are often considered to be of practical significance, if at least .02 or above. However, the

direct effects between race/ethnicity, school level, tenure, and sense of community were not statistically significant.

The resultant estimated regression model was Y (sense of community) = 229.371 (intercept) + -19.036 (gender) + .763 (tenure) + -8.028 (middle school) + 7.068 (high school) + 9.935 (African American) + 9.240 (Hispanic). All categorical variables were dummy coded for this analysis.

Table 4-4

Model Summary, Unstandardized Regression Coefficients, Standardized Regression Coefficients, t-test Statistics, and Semi-Partial r-squares for Condition 1—Follow-up Analysis

Model Summary			*df*	*F*	*p*	R^2
			(6,87)	2.270	.044*	.135
Variables	*b*	Standard Error	*β*	*t*	*p*	r^2
Intercept	229.371	7.383		31.068	.000	
African American	9.935	10.004	.103	.993	.323	.010
Hispanic	9.240	12.966	.073	.713	.478	.005
Tenure	.763	.462	.174	1.650	.103	.027
Middle School	-8.028	8.040	-.114	-.998	.321	0.01
High School	7.068	7.631	.104	.926	.357	.008
Gender	-19.036	6.821	-.296	-2.791	.006*	.077

Note: *p< .05

Condition 2 Follow-up Analysis

To test condition two for the reduced model, the outcome variable (self-efficacy) was regressed on one set of antecedent variables (gender, tenure, school level and race/ethnicity). The R^2 of .145 was statistically significant, $F(6,87) = 2.455$, $p = .031$, suggesting that the antecedent variables (personal demographic variables) were jointly associated with 14.5% of the self-efficacy variance when controlling for the effects of the other variables. Because of the statistically significant relationship, condition two was met for the reduced model. The estimated model parameters are shown in Table 4-5.

The resultant estimated regression model was Y (self-efficacy) = 97.922 (intercept) + 7.059 (gender) + .190 (tenure) + -.826 (middle school) + -.009 (high school) + 10.525 (African American) + .615 (Hispanic). All categorical variables were dummy coded for this analysis.

However, the results indicated that after controlling for the effects of the other antecedent variables, there were two statistically significant relationships: Gender ($b = -7.059$, $t(87) = -2.603$, $p = .011$) and African American ($b = 10.525$, $t(87) = 2.647$, $p = .010$). Specifically, self-efficacy scores for males tended to be 7 points lower than self-efficacy scores for females, the reference group. Also in testing condition two, the self-efficacy scores for African Americans were 10.5 points higher than for the reference group (White/Caucasian). However, because only 11 African American principals participated in this study, a small sample size may have presented a threat to the statistical conclusion validity of the study. Cook and Campbell (1979) cautioned that a small sample size may

affect the ability to make inferences about the relationships between the variables.

Table 4-5

Model Summary, Unstandardized Regression Coefficients, Standardized Regression Coefficients, t-test Statistics, and Semi-Partial r-squares for Condition 2—Follow-up Analysis

Model Summary			*df*	*F*	*p*	R^2
			(6,87)	2.455	.031*	.145
Variables	*b*	Standard Error	*β*	*t*	*p*	r^2
Intercept	97.922	2.935		33.367	.000	
African American	10.525	3.977	.272	2.647	.010*	.069
Hispanic	.615	5.154	.012	.119	.905	.000
Tenure	.190	.184	.108	1.035	.303	.011
Middle School	-.826	3.196	-.029	-.258	.797	.001
High School	-.009	3.033	.000	-.003	.998	.000
Gender	-7.059	2.712	-.274	-2.603	.011*	.067

Note: *p<.05

In this analysis, the squared semi-partial correlation for gender is r^2 = .067, considered to be a small to medium effect size. The squared semi-partial correlation for African American is r^2 = .069, also considered a small to medium effect size (Cohen & Cohen, 1983). The squared semi-partial correlation represents the proportion of total variance (of the outcome variable) that is uniquely associated with any one antecedent variable over and above that of the

others. Therefore, 6.7% of the total variance of self-efficacy is uniquely associated with gender and 6.9% of the total variance of self-efficacy is uniquely associated with race for African Americans. Small effects are often considered to be practically significant, if at least .02 or above. However, the direct effects between Hispanic, school level, tenure, and self-efficacy were not statistically significant.

Condition 3 Follow-up Analysis

To test the last condition of mediation, the outcome variable (self-efficacy) was regressed on the antecedent variables (gender, tenure, school level, race/ethnicity), and the mediating variable (sense of community). The R^2 of .270 was statistically significant, $F(7,86) = 4.544$, $p = .000$, suggesting that the antecedent variables (personal demographic variables) and the mediating variable were jointly associated with 27% of the self-efficacy variance when controlling for the effects of the other variables. Condition three was met for the reduced model. The estimated model parameters are shown in Table 4-6.

The resultant estimated regression model was Y (self-efficacy) = 63.031 (intercept) + -4.163 (gender) + .074 (tenure) + .395 (middle school) + -1.084 (high school) + 9.014 (African American) + -.790 (Hispanic) + .152 (sense of community). All categorical variables were dummy coded for this analysis.

The results indicated that when the effects of the other antecedent variables were controlled, there was no longer a significant relationship between gender and self-efficacy with the addition of sense of community. Because the relationship between gender and self-efficacy was less in the third equation (after

adding the mediating variable of sense of community) than in the second, the third condition of mediation was met for the reduced model.

Table 4-6

Model Summary, Unstandardized Regression Coefficients, Standardized Regression Coefficients, t-test Statistics, and Semi-Partial r-squares for Condition 3—Follow-up Analysis

Model Summary			*df*	*F*	*p*	R^2
			(7,86)	4.544	.000*	.270
Variables	*b*	Standard Error	*β*	*t*	*p*	r^2
Intercept	63.031	9.484		6.646	.000	
African American	9.014	3.716	.233	2.425	.017*	.050
Hispanic	-.790	4.803	-.016	-.165	.870	.000
Tenure	.074	.173	.042	.428	.670	.002
Middle School	.395	2.987	.014	.132	.895	.000
High School	-1.084	2.833	-.040	-.383	.703	.001
Gender	-4.163	2.630	-.162	-1.583	.117	.021

Note: *p<.05

Summary

In summary, when Baron and Kenny's (1986) model was used to test sense of community as a mediator among personal and district demographic variables and self-efficacy, the three conditions of mediation did not hold for the full model. However, in the follow-up analysis when the district demographic variables were removed, the findings suggested that the model held for the

population for gender. In summary, female principals were more self-efficacious than their male counterparts due to the mediated effect of sense of community in the workplace.

Chapter 5 presents the conclusions, implications, and recommendations of the research study.

CHAPTER 5
SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Following an overview of the research problem, the purpose, methodology, and results of the study are summarized. This chapter also presents the conclusions, implications, and recommendations of the research study.

Overview

The yearning for a sense of community has increasingly become a focus in many studies relative to educational and social issues. It appears that members of our society are experiencing a sense of loss for the neighborhoods in which they were raised, regardless of whether they were as idyllic as remembered. Lives are becoming more fragmented, and the organizations within which we work are more bureaucratic and impersonal. Individuals' need for a sense of community appears at the center of many of our current educational reform efforts. Community gives its members a sense of belonging and a source of personal motivation. In contrast, a loss of community has serious side effects in our workplaces and schools. In the absence of a community of support, people experience more isolation and loneliness, absenteeism, burnout, and problems with interpersonal relationships (Merz & Furman, 1997).

Broadly defined, community can describe any organization or institution with which a person identifies and finds meaning (Heller, 1989). Relationships formed at work, like those found in one's family, are an integral part of an individual's identity. Researchers have studied workplaces as communities (Klein & D'Aunno, 1986; Lambert & Hopkins, 1995; Price, 1985) because within those organizations, individuals have developed mutually supportive relationships (Heller, 1989). McMillan and Chavis (1986) defined a sense of community as "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (p. 9).

School reform efforts of the last two decades, since the National Commission on Excellence in Education issued *A Nation at Risk*, have focused on academic achievement, accountability, and standardized testing. In the process, school districts have shifted much of the decision-making authority from the district office directly to the principal and school staff. Principals have been charged with raising student achievement while at the same time involving teachers, parents, and community members in the decision-making process. However, school reform efforts have often failed to deliver results because they did not focus on the strategies for school improvement that can make a difference. It is often simpler to critique past strategies than to identify and implement strategies that are more effective. Schools must embrace a new model, one that focuses on community, in order to realize authentic improvements. At the heart of community are relationships, shared ideals, and a

strong culture (DuFour & Eaker, 1992). Toward this end, principals and other educational leaders need to recognize and support the development of relationships in the workplace. Embracing mutually supportive relationships in the context of schooling will help to create meaning in the lives of those who endeavor to improve educational practices for children and families. The feeling that comes from a sense of community emerges from one's involvement with others and from being supported by colleagues, supervisors, and the organization as a whole (Price, 1985). Some observers believe that the greatest promise for significant school improvement lies in transforming schools into community. "It is time that the metaphor for school was changed from formal organization to community" (Sergiovanni, 1994, p. 14).

Individuals are better able to achieve desired results when they believe they have some control over the events that influence their lives. "The ability to secure desired outcomes and to prevent undesired ones, therefore, provides a powerful incentive for the development and exercise of personal control" (Bandura, 1997, p. 2). Bandura (1995) suggests that the beliefs of personal efficacy are the most central to one's intention to act. "Perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations" (p. 2).

Self-efficacy is important to educational leaders because it is central to the production of results. "Optimistic self-appraisals of capability raise aspirations and sustain motivation in ways that enable people to get the most out of their talents" (Bandura, 1997, p. 72). Organizations that provide mastery experiences,

effective coworker models, and feedback to their employees help to facilitate efficacy which in turn leads to future success and a stronger commitment to the organization (Bandura, 1997). Managerial decision making is affected by personal efficacy beliefs. "Effective decision making . . . requires a high sense of managerial efficacy not only in analytic thinking but also in social persuasion, management of power conflicts, and building coalitions" (p. 451).

The purpose of this study was to examine the role of principals' sense of community acting as a mediator between two sets of antecedent variables (personal and district demographic variables) as these influenced an outcome variable (self-efficacy). Personal demographic characteristics (a set of antecedent variables) included gender, tenure (the number of years worked as a principal in the district), school level (elementary, middle, high), and race/ethnicity. District demographic characteristics (a set of antecedent variables) included the size of the principal's referent group (other principals in close proximity with whom they work), and district enrollment group (small, medium, large, and very large).

As a mediator, sense of community can explain the processes that connect antecedent and outcome variables (Baron & Kenny, 1986). This study consisted of three hypotheses guided by Baron and Kenny's (1986) model for testing mediation. To test for mediation, a series of regression equations must be estimated and tested. Three conditions must hold in order to establish mediation. First, the antecedent variable must affect the mediator (hypothesis 1). Second, the antecedent variable must affect the outcome variable (hypothesis 2).

Third, the mediator must affect the outcome variable; and if the effect of the antecedent variable on the outcome variable is less in the third equation than in the second (after adding the mediator to the equation) then the final condition of mediation is met (hypothesis 3).

The following hypotheses were constructed to test for mediation and guided this study. The mediating role of sense of community is hypothesized in the section below.

Hypothesis 1: Personal/district demographic variables are related to sense of community.

Hypothesis 2: Personal/district demographic variables are related to self-efficacy beliefs.

Hypothesis 3: Principals' sense of community will mediate the relationship between personal/district demographic variables and self-efficacy beliefs.

A stratified random sample by school level and district enrollment group was drawn from public school principals in Florida. Principals in this sample were surveyed by mail. Sense of community was calculated from total scores derived from principals' responses to the Community Assessment Guide (Royal & Rossi, 1996) and self-efficacy was calculated from total scores derived from principals' responses to the Principals' Self-Efficacy Questionnaire (Dimmock & Hattie, 1996). Regression analysis was used to determine whether statistically significant differences at the .05 level occurred in the relationships between two sets of antecedent variables (personal/district demographic variables), principals'

sense of community, and their self-efficacy beliefs when coping with change in the context of restructuring.

Summary and Discussion of Results

The results of the reduced model show that principals' sense of community mediated the relationship between gender (for females) and self-efficacy beliefs.

Hypothesis 1: Sense of Community

The relationship between personal/district demographic variables and sense of community was examined in hypothesis 1 to test the first condition of mediation. The findings show no statistically significant associations among sense of community and the two sets of antecedent variables considered in their entirety. Thus, the first condition of mediation was not met for the full model.

However, after removing one set of antecedent variables (district demographic variables) from the equation in the follow-up analysis, the reduced model showed a statistically significant relationship among the other set of antecedent variables (personal demographic variables) and sense of community. Therefore, the first condition of mediation was met in the follow-up analysis for the reduced model. After controlling for the effects of the other variables, only the relationship between gender and sense of community was statistically significant. In the follow-up analysis, a statistically significant difference was found in the sense of community scores between male and female principals. Male principals had significantly less sense of community than female principals.

Gender. In the follow-up analysis, the findings supported previous research that found significant differences between males and females when explaining sense of community. However, the relationships between gender and sense of community are inconclusive among research studies.

Pretty and McCarthy (1991), studying employees from a public utilities corporation, found that men experienced a greater sense of community than women. However, the researchers also noted that sense of community was positively related to relationship components, autonomy, and task orientation for both men and women. Among male managers, their sense of community was predicted first by the amount of peer cohesion and involvement they perceived from their colleagues, whereas female managers' sense of community was most influenced by the amount of supervisor support they perceived.

In contrast, Lambert and Hopkins (1995) studied employees at a manufacturing company and found that both supervisor support and workgroup support (other colleagues) related to men's sense of community but not to women's. These researchers also found that input into decision making was particularly helpful in explaining sense of community among women. In addition, the extent to which their jobs required them to work well with others was positively related to sense of community for both men and women. Among workplace policies, the researchers demonstrated that benefit appreciation helped explain sense of community for both men and women but was significantly more important for women. Also, having relatives working for the same company detracted from sense of community for women.

Pretty, McCarthy, and Catano (1992) examined burnout and sense of community within a corporation and discovered no differences among males and females with regard to burnout. They noted that when both groups experienced a lower sense of community, they also experienced more exhaustion and depersonalization.

Because sense of community has been shown to differ between men and women in some contexts (Pretty & McCarthy, 1991), gender was included in the Royal and Rossi (1996) study of sense of community among employees within a research firm and three high schools. In their study, researchers found positive relationships for females in predicting sense of community.

Tenure. In the follow-up analysis, this study failed to find a significant relationship between the number of years a participant had been a principal in the district (tenure) and sense of community. Although a positive relationship might have been expected between sense of community and tenure, prior research is inconclusive on this issue. This study of principals in Florida supports the previous studies that showed a lack of relationship between tenure and sense of community.

Pretty and McCarthy (1991) found a significant relationship for male managers only between sense of community and the length of time employees had worked for the company. Royal and Rossi (1996), studying schools and a research firm, found no evidence of a relationship between tenure and sense of community. In another study by Royal and Rossi (1999) in three high schools, the researchers found that, among teachers, tenure was positively related to

sense of community with colleagues, unrelated to students, and negatively related to administrators. Burroughs and Eby (1998) reported no relationship between tenure and sense of community in their study of 11 organizations.

School level. In the follow-up analysis, this study failed to find a significant relationship between school level (elementary, middle, and high) and sense of community. No other studies were identified that examined this particular relationship.

Race/ethnicity. In the follow-up analysis, this study failed to find a significant relationship between race/ethnicity and sense of community. The findings also supported previous studies that showed a lack of relationship between race/ethnicity and sense of community. Lambert and Hopkins (1995) found no significant relationships between race and sense of community. In addition, Davidson, Cotter, and Stovall's (1991) study of sense of community and two types of social variables (need for affiliation and the number of siblings with whom one was raised) found no relationship between sense of community and race. Finally, Newmann, Rutter, and Smith (1989) discovered that the background factor of race did play a role in the relationship among school organizational factors and sense of community. Schools with higher percentages of minority students showed a higher sense of community.

Principals' referent group. This study failed to find a significant relationship between the size of principals' referent group and sense of community. Although one might expect to find a negative relationship between size of workgroup and sense of community (as size of workgroup increases,

sense of community decreases), the one study identified that examined this issue also failed to find a statistically significant relationship between the two (Burroughs & Eby, 1998).

District enrollment group. This study failed to find a significant relationship between size of district and sense of community. Although one might surmise that a smaller district would be associated with sense of community, other research findings are inconclusive. Lounsbury and DeNeui (1996) studied collegiate sense of community and size of college. Their study revealed that students from colleges with enrollments of less than 10,000 students had higher sense of community scores than students from colleges with enrollments greater than 10,000 students.

Newmann, Rutter, and Smith (1989) found a significant relationship between size of school and sense of community. The researchers found that smaller schools experienced a greater sense of community than larger schools.

In a study of multiple senses of community among staff and students at both the macro and subcommunity level, Brodsky and Marx (2001) found a higher sense of community at the macro level than at the subcommunity level, although the subcommunity was in the positive range. This study suggests that individuals can participate in a number of different communities at any one time.

Hypothesis 2: Self-Efficacy

The relationship between personal/district demographic variables and self-efficacy was examined in hypothesis 2 to test the second condition of mediation. The findings indicate that there were no statistically significant associations with

self-efficacy in the relationships containing the two sets of antecedent variables considered in their entirety. Therefore, the second condition of mediation was not met for the full model.

However, after removing one set of antecedent variables (district demographic variables) from the equation in the follow-up analysis, the results indicated that for the reduced model, a statistically significant relationship existed between one set of antecedent variables (personal demographic variables) and self-efficacy. This finding suggests that personal demographic variables were jointly associated with self-efficacy. Therefore, the second condition of mediation was met for the reduced model. After the effects of the other variables were controlled, only two relationships—between gender and self-efficacy, and between race for African Americans and self-efficacy—were statistically significant. There was also found a statistically significant difference in the self-efficacy scores between male and female principals. Male principals had significantly lower self-efficacy than female principals. In terms of race, African American principals had significantly higher self-efficacy than White principals.

Gender. In the follow-up analysis, this study found a statistically significant association between gender and self-efficacy. Conversely, Dimmock and Hattie (1996), studying principals' self-efficacy, did not find a statistically significant relationship between gender and self-efficacy. In their study of socioeconomic status and gender to occupational choices, Hannah and Kahn (1989) contended that occupational efficacy is the result of socioeducational experiences and cultural beliefs. Gender and social class barriers may diminish

occupational efficacy. Women's pursuits of non-traditional careers is constrained by their lowered sense of efficacy for traditionally male dominated roles (Bandura, 1997; Betz & Hackett, 1981). Women's career choices are also shaped by their beliefs in their efficacy to handle both occupational and familial responsibilities (Stickel & Bonett, 1991).

Tenure. In the follow-up analysis, this study did not find a significant association between tenure and self-efficacy. However, Dimmock and Hattie (1996) produced a different result. They looked at the participants' self-efficacy and years of experience as a principal and found a significant relationship between these variables. This led them to conclude that "older principals [have] lower self-efficacy to cope with change" (p. 72).

School level. In the follow-up analysis, this study supported earlier research and did not find a significant association between school level and self-efficacy. Dimmock and Hattie (1996) also found no association between school level (primary versus secondary) and self-efficacy.

Race/ethnicity. In the follow-up analysis, this study supported previous research that found significant differences between race and efficacy. In their study of organizational factors that affect school sense of community and efficacy, Newmann, Rutter, and Smith (1989) reported a statistically significant relationship between race and efficacy. "When schools that are similar in other background features are compared, teachers in schools with high minority enrollments may make special efforts that pay off in a greater sense of

efficacy . . . for students" (p. 234). Research on minorities and occupational efficacy has been comparatively weak in relation to research on gender differences and occupational efficacy (Bandura, 1997). However, "because the sociostructural barriers for women and ethnic minorities are similar, their patterns of perceived occupational efficacy are much the same" (p. 438).

District enrollment group. In the follow-up analysis, this study supported earlier research and did not find any statistically significant relationships between size of district and self-efficacy. A study by Newmann, Rutter, and Smith (1989) also found no significant association between school size and self-efficacy. Although they did not examine size of district, Dimmock and Hattie (1996) did explore the relationship between the location of schools (city versus rural) and principals' self-efficacy—with the assumption that city schools may be larger than rural schools. They did not find a significant association. No other studies were identified that examined relationships between self-efficacy and size of principals' referent group.

Hypothesis 3: Sense of Community as a Mediator between Antecedent Variables and Principals' Self-Efficacy

Sense of community as a mediating variable was examined in hypothesis 3 to test the third condition of mediation. In the analysis of the full model, although it was statistically significant and it accounted for approximately 28% of the variance in self-efficacy, the mediational model did not hold because the first two conditions of mediation (hypothesis 1 and 2) were not met in the analysis containing both sets of antecedent variables. Although sense of community did not hold as a mediator in the full model, when the effects of the other antecedent

variables were controlled, there were significant associations between race for African Americans and self-efficacy and sense of community and self-efficacy. The results of this study supported the findings of Newmann, Rutter, and Smith (1989). Those researchers found significant associations between self-efficacy and sense of community. In their analysis, 11% of the variance in self-efficacy was uniquely associated with sense of community.

In the follow-up analysis, the results of this study supported earlier research that found sense of community acting as a mediating factor. After removing one set of antecedent variables (district demographic variables) from the equation, the results indicated that there was a statistically significant relationship among personal demographic variables, sense of community, and self-efficacy for the reduced model (hypothesis 3). In this analysis, when the effects of the other antecedent variables were controlled, there was no longer a significant relationship between gender and self-efficacy with the addition of sense of community. Because the relationship between gender and self-efficacy was less in the third equation (after adding the mediating variable sense of community), than in the second (hypothesis 2), the third condition of mediation was met for the reduced model. Because this study demonstrated that all three conditions of mediation were met for the reduced model (containing one set of antecedent variables), sense of community was concluded to mediate the relationship between gender and self-efficacy (Baron & Kenny, 1986). These findings suggest that the mediational model concerning gender held for the population when the other variables were controlled. In summary, female

principals were more self-efficacious than male principals as a result of the mediating effect of sense of community in the workplace.

In their study of sense of community as a mediating factor in promoting children's social and ethical development, Battistich, Solomon, and Watson (1998) found clear support for a model in which the effects of program practices on social-ethical outcomes for students were mediated through students' sense of school as a community. This earlier study was based on a program that was implemented in 12 elementary schools in six school districts in the United States over a four-year period, with an additional 12 schools serving as a comparison group. In their study, Battistich et al. characterized sense of community in the school as "caring and supportive relationships among community members, opportunities to actively participate in and help influence community life, and shared goals and values" (p. 7).

Conclusions

The purpose of this study was to determine whether sense of community served to mediate the relationship among two sets of antecedent variables and an outcome variable. Testing of this relationship was guided by Baron and Kenny's (1986) mediational model. The intent was to learn whether sense of community served as a mechanism through which personal/district demographic variables were able to influence principals' self-efficacy beliefs. Statistically significant findings at the .05 level were observed for the reduced model, which is generalizable to public school principals in Florida.

Of the six antecedent variables studied, only two showed a significant association with the outcome variable (self-efficacy) and one with the mediator (sense of community). Gender was found to be associated with sense of community, and gender and race for African Americans were associated with self-efficacy beliefs. As a mediator, sense of community did function to enable gender (for females) to influence self-efficacy. The association between female principals and their self-efficacy beliefs was affected by sense of community in the workplace. Given the belief that females are more relationship-oriented than males, it can be concluded that an organization or workgroup with a higher sense of community would be positive for female principals. Although sense of community did not serve as a mediator for race there was a significant association between race for African Americans and self-efficacy. Although African American principals demonstrated self-efficacy beliefs to a significant degree in this study, this relationship is accounted for by factors not under study and outside of this conceptual model. The following additional conclusions were drawn.

Several studies have found significant associations with sense of community by gender; however, sense of community appears to differ between men and women in some contexts. When the workplace functions as a community, a social context seems to be created in which the processes that fulfill an individual's needs for trust, respect, purpose, caring, recognition, participation, and teamwork are linked by the members' focus on the group as well as their place within the group.

In addition, when community is established in the workplace, individuals seem more inclined to be committed and therefore more likely to identify with the group's goals and values.

In this study, a significant relationship was found between sense of community and self-efficacy, supporting earlier research findings that an enabling work environment builds self-efficacy among leaders. Organizations that facilitate occupational efficacy through community-building activities help employees build a stronger commitment to their colleagues and the organization at large. In a caring work environment, leaders who incorporate the core elements of a community help others with whom they work to learn, experience, and practice those values in their personal and professional lives.

Implications

The results of this study can be applied to school districts that are interested in the importance of sense of community in the workplace and building capacity in school leaders for increased self-efficacy. A sense of community was identified by this study as a means that may affect self-efficacy beliefs among principals. As such, specific interventions that enhance employees' sense of community could be identified and created in the workplace. This section provides additional commentary on the implications of the study for theory and practice in school districts. These findings may encourage superintendents and other educational leaders to seek ways to foster a sense of community among principals.

When a sense of community is present, female principals feel a greater sense of efficacy. To improve schools and enhance student achievement, principals must believe they can make a difference and have confidence in their abilities to do so. Communication and professional discussion among principals can ameliorate the isolation they often feel. This result has been identified by Sergiovanni (2001) and the actions to bring it about are advocated by the National Association of Elementary School Principals (2001). As principals work together to find new ways for responding to their challenges, they endeavor to build the knowledge base that will lead to positive organizational change. A study of the characteristics of principals of successful elementary schools showed that successful principals often pushed the limits of bureaucracy and were driven by a zealous commitment to schooling (Goldhammer et al., 1971). Higher efficacy often leads to more risk taking among principals.

We need a better understanding of sense of community in the workplace and how it affects school improvement practices; therefore, an important implication for theory and practice is to continue studying the antecedents and outcomes of sense of community within different educational contexts. In addition, researchers need to adopt a common definition of community to avoid misinterpretation.

An important element of community is the incorporation of diversity. Because individuals bring a diverse set of skills, background experiences, and cultural differences to the workplace, school district staff should provide opportunities for principals to become more understanding of and sensitive to

differences among the workgroup members. Acknowledging and incorporating diversity and accommodating differences help foster a sense of community.

This study provides insight into linkages between community practices and individuals' self-efficacy that have implications for school administrators and school change. It is worth noting that group experiences affect the individual members' self-efficacy. Self-efficacy is important to school leaders and their professional practices for school improvement. As Rossi and Stringfield (1995) noted, "a strong sense of community is required to enable staff members to respond effectively to the challenges associated with implementing these reforms and maintaining them over time" (p. 5).

Communities are organized around relationships and the felt interdependencies that nurture them (Blau & Scott, 1962). Tonnies' (1957) theories on society and communities and his use of *gemeinschaft* and *gesellschaft* as metaphors can help us understand what community means as schools become communities. Organizations with *gesellschaft* are characterized as formal and distant. Relationships are competitive, acceptance is conditional, and self-interest prevails. These characteristics may underlie our schools' present policies and procedures in terms of "how schools are organized, how teaching and learning takes place, how students are evaluated, how supervision is practiced, how principals and students are motivated and rewarded, and what leadership is and how it works" (Sergiovanni, 2001, p. 78). The relationships in *gemeinschaft* communities are different from those found in *gesellschaft* organizations. They are more meaningful and personalized and members feel a

special obligation and connectedness with each other. The Institute for Education and Transformation (1992) contends that it is the quality of the relationships that is critical for school improvement. Those relationships determine the quality of the school.

Rossi and Shank (2000) recognize that "employees are ultimately responsible for building community on a daily basis as part of their work. However, nurturing this community requires serious intent on the part of the organization and strategic thinking about the conduct of human resources and practices" (p. 5).

Additional Limitations

In this study the proportional response rate of females was lower than that of males; therefore, the small to medium effect size of the association between gender and sense of community might have been higher with a larger response rate among female principals. In addition, due to the small number of African American principals who participated in this study, this small sample size may have presented a threat to the statistical conclusion validity of the study. Cook and Campbell (1979) cautioned that a small sample size may affect the ability to make inferences about the relationships between the variables. Therefore, caution should be exercised in the confidence with which results were interpreted. These research results are also limited to findings relative to sense of community mediating the relationships between personal/district characteristics and self-efficacy. Future research could examine the effect of

interventions on building sense of community in the workplace and subsequent changes to self-efficacy beliefs or other outcomes.

Recommendations for Future Research

To better understand the variables explored in this study, future researchers might want to use other methods and design elements. Qualitative data collection methods, used to supplement the interpretability of linkages subsequent to quantitative analyses, may enrich future studies.

Because self-efficacy is situationally specific, this study examined principals' self-efficacy beliefs concerning coping with change in the context of restructuring. The instrument used tapped into the areas of school improvement planning; teaching, learning, and curriculum; managing staff; budgeting; managing parents; and managing the environment. Principals were asked to make a judgment about their ability to perform certain tasks to successfully resolve each situation. Several participants wrote unsolicited comments on the completed questionnaires. Many stated that the scenarios presented corresponded well with their personal experiences as a principal in Florida. One question in particular, however, caused a strong reaction and several unsolicited comments. Question six on the Principals' Self-Efficacy Questionnaire stated, "As the newly appointed principal arriving at school, you note that all teaching staff have been at the school for a long period of time and the only change in staff has been your appointment as principal. You realize the staff is in the 'comfort zone' and standards of achievement are low. After 6 months of reasoning and applying subtle pressure a staff meeting is arranged to 'have it

out.'" The part of the vignette concerning long-time staff members being in the comfort zone is highly probable, but the approach to "have it out" caused a negative reaction among some of the respondents. Those who commented indicated they would "never handle the problem that way." Future researchers who use this instrument may want to consider restating the approach or strategy for resolving that particular vignette. An additional recommendation for the Principals' Self-Efficacy Questionnaire would be to include a vignette relating to testing and the grading of schools.

Klein and D'Aunno (1986) argued that individuals' workplace community experiences may differ depending upon the referent group given. Because sense of community involves a complex set of interactions between an individual and a group, the functioning of the group affects how the members experience community, both directly and indirectly. Given these differences, future studies may examine principals' sense of community by using referent groups other than their principal colleagues—the referent group in this study. It might be advantageous to assess principals' sense of community in relation to supervisors, senior staff, or members of other work groups, departments, or work units.

Future studies may also want to assess community in different settings. This study examined principals' community experiences in relation to other principals in their respective districts. Royal and Rossi (1996) studied sense of community among staff members in three high schools. Battistich et al. (2000) examined community experiences in elementary schools. Future studies may

want to examine community experiences among staff members at the district office, as district staff members are often called on to serve as a resource to schools and individuals. Because community experiences are known to differ by setting and by the referent group, future studies may want to examine sense of community among district superintendents or among chief state school officers.

This study used personal and district characteristics as the antecedent variables. In addition to demographic variables, future researchers may want to investigate relationships between sense of community and group and organizational practices. Future studies could examine district policies and procedures that influence an individual's ability to build a sense of community in the workplace. The identification of incentives or perhaps disincentives for working with colleagues in solving problems may also be of interest in understanding community-building practices and their relationship to student achievement issues or other educational outcomes.

In summary, Fullan (1991) argued that there simply cannot be a singular answer to the many challenges principals face when addressing school improvement issues. The most important task is to "build the capacity of the district and the schools to handle any and all innovations" (p. 214). Through time, staff may not only find change easier to handle but even more importantly, they may "find innovation and improvement more engaging and deeply satisfying" (p. 214). The current policies and practices in many school districts sometimes inhibit the creation of changes in employees needed to build their capacity to handle innovations. Organizations must help create opportunities for

changes in employees, such as fostering a greater sense of community. When employees feel a sense of community at work, they have more confidence in their ability to define and negotiate issues and problems that concern them.

APPENDIX A
UFIRB PROTOCOL FOR THE RESEARCH STUDY

TITLE OF PROTOCOL:
The Relationship of Selected Principal Characteristics, Workgroup and District Characteristics, and Principals' Perceived Sense of Community to Self-Efficacy Beliefs of Public School Principals in Florida

PRINCIPAL INVESTIGATOR:
Mildred V. Waskiewicz, Doctoral Candidate
Educational Leadership Program, University of Florida
4220 Gull Cove
New Smyrna Beach, FL 32169
386-426-0986
snookie@ucnsb.net

SUPERVISOR:
Dr. James L. Doud
Department of Educational Leadership
258 Norman Hall
Gainesville, FL 32611
352-392-2391
jldoud@coe.ufl.edu

DATES OF PROPOSED PROTOCOL:
June to August of 2002

SOURCE OF FUNDING FOR THE PROTOCOL:
None

SCIENTIFIC PURPOSE OF THE INVESTIGATION:
This study will examine the relationship of selected principal characteristics, workgroup and district characteristics, and principals' sense of community to self-efficacy beliefs of public school principals in Florida. Specifically, the study will investigate the mediational role of sense of community when examining the relationship between principals' self-efficacy beliefs related to restructuring and management of change, relative to principals' gender, years of experience as a principal, school level, race/ethnicity, number of principal referents in workgroup, and district enrollment.

RESEARCH METHODOLOGY:
A sample of principals (N=150) will be drawn from the population of public school principals in Florida. Using a stratified design, the principals will be selected randomly from the five district enrollment groups (i.e., small, medium/small, medium, large, very large) by school level (i.e., elementary, middle/junior, high), a total of 15 categories. Ten principals from each of the 15 categories will be selected. The potential respondents will be mailed an introductory letter on NCR paper with an explanation of the purpose of the study as well as giving informed consent, a form letter explaining that they will be compensated with a gift card of their choice from a selection of stores/restaurants for participating in the study ($15.00 value), along with a copy of the

two questionnaires, and two pre-addressed stamped return envelopes. The introductory letter on NCR paper also serves as the Informed Consent document.

The following procedure will be used to conduct the research and to collect the data for this study. The questionnaire packet will be mailed to the random sample of Florida public school principals selected for the study. The packet will include: (a) introductory letter/informed consent on NCR paper (introductory letter explains the purpose of the study, gives instructions for completing the questionnaires, and provides informed consent); (b) the questionnaires (Community Assessment Guide; Principals' Self-Efficacy Questionnaire); (c) a pre-addressed stamped envelope for returning the completed questionnaires; and (d) a pre-addressed stamped envelope for returning: (1) the investigator's copy of signed and dated informed consent, and (2) the form letter indicating their $15 gift card preference as compensation for participating in the study.

Two weeks after the initial mailing of the questionnaires, a follow-up letter, including Informed Consent on NCR, another copy of the two questionnaires, two pre-addressed stamped envelopes and the gift card preference form will be mailed to the principals who had not returned the informed consent and gift card preference form within the desired period of time; asking them to complete and return the questionnaires.

At the end of the survey period, the responses from the survey will be tabulated for the statistical analysis. This analysis will be conducted by using the SPSS for Windows computer program to report the statistical results for the study.

POTENTIAL BENEFITS AND ANTICIPATED RISK:
There will be no direct benefits or personal risks for participation in this study.

DESCRIPTION HOW PARTICIPANTS WILL BE RECRUITED, THE NUMBER AND AGE OF THE PARTICIPANTS, AND PROPOSED COMPENSATION: A list of principals, by district as well as by school level, and their residential mailing addresses will be obtained from the Florida Department of Education. Using a stratified design, 150 principal respondents will be selected from the population of public school principals. Participants will vary in gender and age; however, no participants will be under 18 years of age. Participants who return a gift card preference form with their informed consent will receive a $15 store or restaurant gift card from a selection of options as compensation for their participation.

INFORMED CONSENT PROCESS:
The Informed Consent Letter will be duplicated on NCR for the purposes of this study. It will be mailed with the questionnaire packet, and participants will be asked to complete the questionnaires and simultaneously return the signed informed consent in the separate pre-addressed and stamped envelope provided to all potential participants. The participant will be directed to retain the participant's copy (yellow copy of NCR form) of the Informed Consent Letter for their records.

Attachments: Introductory letter/Informed Consent (on NCR paper), Community Assessment Guide, Principals' Self-Efficacy Questionnaire, and gift card preference form.

Michael V Laskiewicz
Principal Investigator

James L. Doud
Chair

I approve this protocol for submission to the UFIRB:

James L. Doud
Department Chair

APPENDIX B
UFIRB APPROVAL OF PROTOCOL FOR THE RESEARCH STUDY

UNIVERSITY OF FLORIDA

Institutional Review Board

98A Psychology Bldg.
PO Box 112250
Gainesville, FL 32611-2250
Phone: (352) 392-0433
Fax: (352) 392-9234
E-mail: irb2@ufl.edu
http://www.rgp.ufl.edu/irb/irb02

DATE: May 22, 2002

TO: Ms. Mildred Waskiewicz
4220 Gull Cove
New Smyrna Beach, FL 32169

FROM: C. Michael Levy, Chair
University of Florida
Institutional Review Board

SUBJECT: **Approval of Protocol #** 2002 - 451

TITLE: The Relationship of Selected Principal Characteristics, Workgroup and District Characteristics, and Principals' Perceived Sense of Community to Self-Efficacy Beliefs of Public School Principals in Florida

FUNDING: Unfunded

I am pleased to advise you that the University of Florida Institutional Review Board has recommended approval of this protocol. Based on its review, the UFIRB determined that this research presents no more than minimal risk to participants. Given your protocol, it is essential that you obtain signed documentation of informed consent from each participant. Enclosed is the dated, IRB-approved informed consent to be used when recruiting participants for the research.

If you wish to make any changes to this protocol, including the need to increase the number of participants authorized, you must disclose your plans before you implement them so that the Board can assess their impact on your protocol. In addition, you must report to the Board any unexpected complications that affect your participants.

If you have not completed this protocol by 21-May-2003, please telephone our office (392-0433), and we will discuss the renewal process with you.

It is important that you keep your Department Chair informed about the status of this research protocol.

CML:dl/jw

cc: Dr. James Doud

Equal Opportunity/Affirmative Action Institution

APPENDIX C
LETTER OF INFORMED CONSENT FOR THE RESEARCH STUDY

Department of Educational Leadership
PO Box 117049
University of Florida
Gainesville, FL 32611-7049

Dear Principal:

I am a doctoral candidate at the University of Florida, conducting research on the role of sense of community in the workplace and self-efficacy beliefs of public school principals in Florida. More specifically, my study will investigate the role of sense of community when examining the relationship between principals' self-efficacy beliefs concerning restructuring and management of change, relative to their gender, years of experience as a principal, race/ethnicity, school level, number of principal referents in workgroup, and district enrollment. Because I am also a full-time Coordinator of Student Services (i.e., school social workers, school psychologists) in a large school district in Northeast Central Florida, I am especially interested in learning more about the role that sense of community plays among principals as a group.

I am asking you to complete a paper-and-pencil questionnaire packet, which contains two separate surveys. First, you will be asked to respond to questions about your ability to perform various tasks in order to secure a successful resolution to each situation. Secondly, you will be asked to indicate your level of agreement with a series of statements related to interpersonal relationships, work relationships, and the direction and purpose of your work. The second questionnaire also asks for brief background information related to demographics and workgroup characteristics. Completion of the questionnaire packet will require approximately 15-20 minutes of your time. You do not have to answer any question that you do not wish to.

Pursuant to the University of Florida Institutional Review Board, your participation is strictly voluntary. There is no penalty for not participating. You have the right to withdraw from the study at anytime without consequence. Your identity will be kept confidential to the extent provided by law. Your name will not be connected to the completed questionnaire packets. Nor will your name be used in any report.

There will be no personal risks or direct benefits for your participation in this study. Your compensation for participating in this project will be a $15 gift card from a variety of store and restaurant choices.

If you have any questions about this research project, please contact me at (386)-426-0986 or my faculty supervisor, Dr. Jim Doud, at (352)-392-2391. Questions or concerns about your rights as a research participant may be directed to the UFIRB office, University of Florida, Box 112250, Gainesville, FL 32611; (352)-392-0433.

If you agree to participate in this study, please sign and date this Informed Consent letter at the bottom and retain the yellow copy for your records. In addition, please complete the enclosed gift card preference form as compensation for participating in this study. Return both the white copy of Informed Consent along with your gift card preference form in the enclosed pre-addressed stamped envelope provided for your convenience. Please complete and return the two questionnaires in the separate pre-addressed stamped envelope. By signing the Informed Consent, you give me permission to report your responses anonymously in the final analysis to be submitted to my faculty supervisor for this project.

Mev Waskiewicz

I have read the procedure described above. I voluntarily agree to participate in this study and I have received a copy of this description.

Signature of Participant _____ Date _____

APPROVED BY
University of Florida
Institutional Review Board (IRB 02)
Protocol# 2002-451
For Use Through 5/21/03

White copy – Return to Researcher Yellow copy – Participant's Copy

APPENDIX D
UFIRB APPROVAL TO INCREASE SAMPLE SIZE
FOR RESEARCH STUDY

Institutional Review Board

98A Psychology Bldg.
PO Box 112250
Gainesville, FL 32611-2250
Phone: (352) 392-0433
Fax: (352) 392-2433
Email: **irb2@ufl.edu**
http://www.rgp.ufl.edu/irb/irb02

May 22, 2002

MEMORANDUM

To: Ms. Mildred Waskiewicz
4220 Gull Cove
New Smyrna Beach, FL 32169

From: C. Michael Levy, Ph.D., Chair
University of Florida Institutional Review Board

Subject: UFIRB Protocol # 2002-451 (The Relationship of Selected Principal Characteristics, Workgroup and District Characteristics, and Principals' Perceived Sense of Community to Self-Efficacy Beliefs of Public School Principals in Florida)

Funding: Unfunded

The request, received May 22, 2002 to revise the above referenced protocol has been reviewed and approved. Approval of this protocol runs through May 21, 2003. Any further revisions to this protocol, including the need to increase the number of participants authorized must be reviewed by the Board prior to implementation.

CML:dl/js

(increasing sample size)

Equal Opportunity/Affirmative Action Institution

APPENDIX E
COMMUNITY ASSESSMENT GUIDE

Community Assessment Guide©

Developed by Dr. Robert J. Rossi and associates

Using the scale below, please indicate your level of agreement with a series of statements. Please circle one number for each statement.

1 = Strongly Disagree	⟷	6 = Strongly Agree

Part I – Principal Community Survey

1. My personal well-being is important to...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
2. When it comes to looking out for me, I really can't trust...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
3. I am treated with respect by...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
4. I am not given credit for things I do here by...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
5. If I had a personal problem, I'd have the support of...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
6. I can depend on the honesty of...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
7. Respect for my privacy is shown by...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
8. When problems come up, the wrong people are blamed by...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6

Using the scale below, please indicate your level of agreement with a series of statements. Please circle one number for each statement.

	1 = Strongly Disagree	↔				6 = Strongly Agree
9. I feel I matter as a person to...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
10. I can count on being treated fairly by...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
11. My abilities are respected by...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
12. My accomplishments are recognized by...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
13. In dealing with personal problems, I can expect understanding from...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
14. When it comes to keeping their word, I trust...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
15. Respect for my ideas is shown by...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
16. I get blamed for things that aren't my fault by...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6

Using the scale below, please indicate your level of agreement with a series of statements. Please circle one number for each statement.

	1 = Strongly Disagree	↔				6 = Strongly Agree
17. I know I am cared about by...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
18. Information I need is not given to me by...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
19. When we do things together, I work well with...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
20. Spending extra time to make things better for all of us isn't of interest to...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
21. People's differences are understood and valued by...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
22. Misunderstandings happen when I communicate with...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
23. In taking care of problems, I can work together with...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
24. I have a voice in important work-related decisions that are made by...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6

Using the scale below, please indicate your level of agreement with a series of statements. Please circle one number for each statement.

	1 = Strongly Disagree	↔				6 = Strongly Agree
25. It's what you have to offer and not your race or sex that counts with...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
26. I'm the last to know what's going on with...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
27. I don't get much done when I have to work together with...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
28. Responsibility for making improvements that affect all of us is taken by...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
29. Because of one or more personal characteristics, I am made to feel uncomfortable by...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
30. I have trouble communicating with...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
31. I feel I'm on the same team as...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
32. When they are making decisions that affect our work, my opinion is not important to...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6

Using the scale below, please indicate your level of agreement with a series of statements. Please circle one number for each statement.

	1 = Strongly Disagree			↔		6 = Strongly Agree
33. Because of their race or sex, some people here are treated badly by...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
34. I have a different sense of where we should go in the next few years than do...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
35. My ideas about the purpose of our work are like those of...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
36. When it comes to how people should be treated, I agree with...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
37. We're being taken in the wrong direction by the actions of...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
38. You can see the importance of what we do in the behavior of...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
39. "Walking the talk" describes the actions of...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
40. My sense of what our future should be is different from that of...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6

Using the scale below, please indicate your level of agreement with a series of statements. Please circle one number for each statement.

	1 = Strongly Disagree ⟷ 6 = Strongly Agree					
41. I see the purpose of what we do differently than do...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
42. My ideas about how people should act are like those of...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
43. What they say they want our schools to become doesn't show up in the actions of...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
44. The purpose of what we do doesn't seem to motivate...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6
45. I have a problem with the behavior of...						
Other principals here	1	2	3	4	5	6
Our assistant/area superintendent (our immediate supervisor)	1	2	3	4	5	6

Part II – Background

Background items are included to help in understanding the information provided.

1. Tenure:
[ ] Total number of years you have been a principal in this district

2. The level of school for which you are currently a principal:
[ ] Elementary
[ ] Middle/Junior
[ ] Combination Middle/High
[ ] High
[ ] Alternative Education (teen parent, behavior/discipline)

3. Gender:
[ ] Female
[ ] Male

4. Race/Ethnicity:
[ ] American Indian/Alaska Native
[ ] Asian/Pacific Islander
[ ] Black Non-Hispanic
[ ] Hispanic
[ ] White Non-Hispanic

5. Principal Referents (If your district is divided into areas):
[ ] Approximate number of principals in your area; and
[ ] Approximate number of principals in your district (*skip to question 7*)

6. Principal Referents (If your district is NOT divided into areas):
[ ] Approximate number of principals in your district

7. Work relationships with *other principals* are primarily fostered through:
Rank 1 to 5 (highest to lowest)
[ ] Telephone
[ ] Email
[ ] Formal meetings
[ ] Informal meetings (over lunch, etc)
[ ] Workshops or conferences

8. Work relationships with your *immediate supervisor* (assistant/area superintendent) are primarily fostered through:
Rank 1 to 6 (highest to lowest)
[ ] Telephone
[ ] Email
[ ] Formal meetings
[ ] Informal meetings
[ ] Unscheduled/drop-by meetings
[ ] Workshops or conferences

9. Your district's enrollment group (number of Pre-K to 12 students):
[ ] Small (less than 7,000 students)
[ ] Medium/Small (7,000 – 19,999 students)
[ ] Medium (20,000 – 39,999 students)
[ ] Large (40,000 – 100,000 students)
[ ] Very large (greater than 100,000 students)

Permission granted to use the Community Assessment Guide® by Robert J. Rossi

APPENDIX F
PRINCIPALS' SELF-EFFICACY QUESTIONNAIRE

Principals' Self-Efficacy Questionnaire

The following questions ask about your perceptions of your ability to perform various tasks, such as curriculum management, management of teaching and learning, budgeting, management of the external environment, and school improvement planning. You are asked to make a judgment about your ability to perform each of the tasks in order to secure a successful resolution of the situation. Where possible, assume the situation applies to your present school setting.

It is recognized that principals may well feel different levels of confidence in their abilities, according to the nature of the task or problem, and therefore variations on the confidence scale may be expected.

Indicate your degree of confidence by circling the appropriate point on the 0 to 10 CONFIDENCE scale, based on the following question:

How confident can you be of securing a successful resolution of this situation?

SCHOOL IMPROVEMENT PLANNING

1. A small, yet influential and articulate group of staff members actively resists all attempts to implement the school's agreed priorities.

0	1	2	3	4	5	6	7	8	9	10
+					+					+
Totally Unconfident					Moderately Confident					Totally Confident

2. After much careful deliberation and due process your school has arrived at the point where two of its three priorities for the school improvement plan next year have been decided. However, the staff and parents are split equally in planning staff development initiatives. The teachers want all staff development funding to be spent on reading initiatives and the parents want staff development funds spread evenly across the areas of reading, math, and science.

0	1	2	3	4	5	6	7	8	9	10
+					+					+
Totally Unconfident					Moderately Confident					Totally Confident

Indicate your degree of confidence by circling the appropriate point on the 0 to 10 CONFIDENCE scale, based on the following question:

How confident can you be of securing a successful resolution of this situation?

TEACHING, LEARNING AND CURRICULUM

3. As principal, you together with the teaching staff have decided to introduce more peer tutoring and cooperative small group student learning across the school. Many parents are strongly opposed to this idea.

0	1	2	3	4	5	6	7	8	9	10
+					+					+
+					+					+
Totally Unconfident					Moderately Confident					Totally Confident

4. You have decided that, after careful consideration, the students in your school would benefit from the introduction of an integrated curriculum, with team teaching and problem-based learning. A number of staff argue that these changes were debated years ago, they failed then, why should they succeed this time?

0	1	2	3	4	5	6	7	8	9	10
+					+					+
+					+					+
Totally Unconfident					Moderately Confident					Totally Confident

MANAGING STAFF

5. A female teacher has accused the male school resource officer (SRO) of sexual harassment. She wishes to register a formal complaint to you, as principal.

0	1	2	3	4	5	6	7	8	9	10
+					+					+
+					+					+
Totally Unconfident					Moderately Confident					Totally Confident

6. As the newly appointed principal arriving at school, you note that all teaching staff have been at the school for a long period of time and the only change in staff has been your appointment as principal. You realize the staff is in the "comfort zone" and standards of achievement are low. After 6 months of reasoning and applying subtle pressure a staff meeting is arranged to "have it out."

0	1	2	3	4	5	6	7	8	9	10
+					+					+
+					+					+
Totally Unconfident					Moderately Confident					Totally Confident

Indicate your degree of confidence by circling the appropriate point on the 0 to 10 CONFIDENCE scale, based on the following question:

How confident can you be of securing a successful resolution of this situation?

BUDGETING

7. A minority group within the school (ESE students) has been identified as having a legitimate need for new equipment for adaptive physical education. The ESE teacher is well organized and motivated. He is able to obtain a grant from a professional sports franchise, but needs an additional $8,000 from the school. Without consulting the principal, he negotiates with a local businessman who promises half of the money if the school will contribute the other half. There is sufficient money within the school budget but the school finance committee feels strongly that too much money will be spent on a very small number of students. You have to guide the committee through the problem of weighing the needs of the minority against those of the majority, as finances are tight.

0	1	2	3	4	5	6	7	8	9	10
+					+					+
Totally Unconfident					Moderately Confident					Totally Confident

8. An examination of budgetary spending in mid-year reveals the school is over-spending across most of its budget categories. Approximately one half of the school would support cutbacks in expenditures, while the other half would not. Instead, they urge further income generation, through sponsorships and fund raising.

0	1	2	3	4	5	6	7	8	9	10
+					+					+
Totally Unconfident					Moderately Confident					Totally Confident

MANAGING PARENTS

9. A group of parents has openly canvassed other parents not to enroll children in the school because of a particular staff member. This has caused conflict between school and community. The union has backed the teacher, who is due to return from leave. The community is openly aggressive towards the teacher's return.

0	1	2	3	4	5	6	7	8	9	10
+					+					+
Totally Unconfident					Moderately Confident					Totally Confident

Indicate your degree of confidence by circling the appropriate point on the 0 to 10 CONFIDENCE scale, based on the following question:

How confident can you be of securing a successful resolution of this situation?

10. A talented, highly motivated music teacher has been appointed to the school. She has made a distinct change to the teaching of music. Students are receiving an enlightened and rewarding program, "good things" are happening in music for the first time in years. You have acknowledged these improvements by congratulating the teacher. You then receive phone calls, and letters from irate parents who are most disturbed to discover that one of the music classes has been exposed to obscenities in the music recordings. The parents are going to take matters further, complaining to the district office and the media.

0	1	2	3	4	5	6	7	8	9	10
+					+					+
+					+					+
Totally Unconfident					Moderately Confident					Totally Confident

MANAGING THE ENVIRONMENT

11. A union directive has asked staff to march in protest against asbestos-related issues. The district has declared that short term leave may not be granted to staff intending to take part. Some staff have already indicated their intention to march, but not to declare this on their leave form.

0	1	2	3	4	5	6	7	8	9	10
+					+					+
+					+					+
Totally Unconfident					Moderately Confident					Totally Confident

12. A male teacher on your staff has a propensity to hit disruptive students. A journalist telephones you after having been contacted by a parent whose child claims physical abuse by the teacher. The journalist is earnestly seeking the full story for inclusion in the next issue of the local newspaper.

0	1	2	3	4	5	6	7	8	9	10
+					+					+
+					+					+
Totally Unconfident					Moderately Confident					Totally Confident

---

Developed by Clive Dimmock, Ph.D., University of Western Australia
John Hattie, Ph.D., University of Auckland, Auckland, New Zealand

Permission granted to use the Principals' Self-Efficacy Questionnaire by John Hattie

APPENDIX G
PERMISSION FOR USAGE OF THE COMMUNITY ASSESSMENT GUIDE

iBuildCommunity.com

1733 Joel Way, Los Altos, CA 94024
650-940-1863 / 650-776-4949 (cell)

April 19, 2002

Mildred V. Waskiewicz
4220 Gull Cove
New Smyrna Beach, FL 32169

Reference: Dissertation use of *Community Assessment Guide*©

Dear Mev:

This letter acknowledges our agreement, dated 2/26/02, for your use of the *Community Assessment Guide*© in your dissertation project. I wish your project well and look forward to your results.

Sincerely,

Robert J. Rossi, Ph.D.
Founder and CEO
brossi@ibuildcommunity.com

APPENDIX H
COMMUNITY ASSESSMENT GUIDE
STUDENT USER AGREEMENT

iBuildCommunity.com

1733 Joel Way, Los Altos, CA 94024
650-940-1863 / 650-776-4949 (cell)

CAG Student-User Agreement

The *Community Assessment Guide*© is owned and copyrighted by *i*BuildCommunity.com, a small business. Use of the instrument is subject to all terms and conditions set forth by *i*BuildCommunity.com, which, alone, has the right to authorize transfer, reproduction, and/or distribution of the form.

Use of the *CAG*© by students is limited to those personal projects typically associated with meeting requirements for advancement or post-graduate studies. Student use of the *CAG*© is not permitted in cases where the work is undertaken strictly on behalf of or for the benefit of educational institutions or other, independent organizations.

Conditions of use of the *CAG*© for students engaged in research are as follows:

- In any publication or presentation of survey results, full credit for development of the *CAG*© must be given to "Dr. Robert J. Rossi and associates," and ownership and copyright of the form must be attributed to "*i*BuildCommunity.com"
- One copy of the final product of the research must be sent or delivered in timely fashion to *i*BuildCommunity.com, ATTN: Dr. Robert J. Rossi, 1733 Joel Way, Los Altos, CA 94024-5825

I/We have reviewed the conditions stated above for use of the *CAG*© and agree to them in full.

Mildred V. Waskiewicz
Printed Name

Mildred V Waskiewicz 2/26/02
Signature

APPENDIX I
PERMISSION FOR USAGE OF THE PRINCIPALS' SELF-EFFICACY QUESTIONNAIRE

SCHOOL OF EDUCATION

NEW ZEALAND

55 Anzac Avenue
Telephone 64 9 373 7599
Facsimile 64 9 373 7455
The University of Auckland
Private Bag 92019
Auckland, New Zealand

Mildred V. Waskiewicz
4220 Gull Cove
New Smyrna Beach, FL 32169
work email: mwaskiew@mail.volusia.k12.fl.us

Mev

I am delighted that you are interested in using the Self-efficacy scale that Clive Dimmock and I developed. I give you permission to so use the instrument and to make whatever local adjustments to it to serve your purposes.

The scoring is just a straight addition of the responses to all vignettes.

I would be most keen to see your results and offer my help in any way that can help you in your process of exploring the self-efficacy of school leaders.

John Hattie
Professor, co-Head of Education
University of Auckland

March, 2002

APPENDIX J
GIFT CARD PREFERENCE FORM

GIFT CARD PREFERENCE FORM

Dear Principal:

While there are no direct benefits for participating in this research study, I would like to offer you compensation for your time in completing the questionnaires. As previously stated, completion of the questionnaires will require approximately 15 - 20 minutes of your time.

Please return this gift card preference form along with your signed and dated informed consent, in a separate envelope from the questionnaires to ensure anonymity of your responses.

Thank you once again for your participation in this research study.

I have completed and returned the research questionnaires in a separate envelope. As compensation, I would like to receive a $15.00 gift card from one the following restaurants/stores (please mark the appropriate box):

Restaurants:

_____Olive Garden
_____Red Lobster

Stores:

_____Home Depot
_____Target

Please mail my gift card to the following address (please print):

Name_____

Address_____

_____

APPENDIX K
REQUEST FOR INFORMATION FROM THE
FLORIDA DEPARTMENT OF EDUCATION

Mildred V. Waskiewicz
4220 Gull Cove
New Smyrna Beach, Florida 32169

April 17, 2002

Teresa Railey Sancho
Florida Department of Education
325 W. Gaines Street, Room 852
Tallahassee, FL. 32399-0400

Dear Ms. Sancho:

I am a doctoral candidate at the University of Florida and will be conducting survey research as part of the dissertation requirements. As my study involves the random selection of public school principals throughout the state, I am requesting a list of all public school principals, K-12, and their residential addresses for the 2001-2002 school year. As I am interested in all districts, it would be helpful to have the list of names assorted by district. In addition, please sort the principal's names by level (i.e., elementary, middle, high), if possible.

Per your email of April 10th, it is my understanding that there will not be a charge for this list, as I am a student.

If you have additional questions, please feel free to call me at 386-734-7190, extension 20505, during the day. My email address at work is: mwaskiew@volusia.k12.fl.us

Thank you again for your assistance.

Sincerely,

Mildred V. Waskiewicz

APPENDIX L
LETTER TO PRINCIPALS-SECOND MAILING

University of Florida
Department of Educational Leadership
P.O. Box 117049
Gainesville, Florida 32611-7049

June, 2002

Dear Principal:

You should have recently received a questionnaire in the mail and a letter requesting your participation in my dissertation study. If you have already returned the survey packet, please disregard this letter and accept my thanks for your contribution to the body of research relevant to school leadership.

If you have not returned the questionnaire, a second copy is enclosed for your convenience. I am again seeking your time and assistance in the completion of the enclosed survey for my dissertation. Please return the packet as soon as possible so that you may receive a gift card for your participation. I appreciate your assistance. Thank you in advance.

Sincerely,

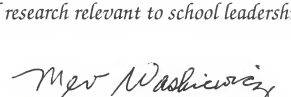
Mildred V. Waskiewicz
Doctoral Candidate
University of Florida

APPENDIX M
THANK YOU CARD TO RESEARCH PARTICIPANTS

To teach, to guide, to explain,
to help, to nurture –
these are life's noblest attainments.

– Frank Tyger

Thank you for your time and assistance
in completing the survey for my dissertation.
Please accept this token of appreciation
for your contribution to the
body of research relevant to school leadership.



REFERENCES

Babbie, E. R. (1973). *Survey research methods*. Belmont, CA: Wadsworth.

Bandura, A. (1995). Exercise of personal and collective efficacy in changing societies. In A. Bandura (Ed.), *Self-efficacy in changing societies* (pp. 1-45). New York: Cambridge University Press.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173-1182.

Barth, R. S. (1990). *Improving schools from within: Teachers, parents, and principals can make a difference*. San Francisco: Jossey-Bass.

Battistich, V., Solomon, D., & Watson, M. (1998, April). *Sense of community as a mediating factor in promoting children's social and ethical development*. Paper presented at the meeting of the American Educational Research Association, San Diego, CA.

Betz, N. E., & Hackett, G. (1981). The relationship of career-related self-efficacy expectations to perceived career options in college women and men. *Journal of Counseling Psychology, 28*, 399-410.

Bishop, P. D., Chertok, F., & Jason, L. A. (1997). Measuring sense of community: Beyond local boundaries. *Journal of Primary Prevention*, *18*, 193-212.

Blau, P. M., & Scott, W. R. (1962). *Formal organizations*. San Francisco: Chandler.

Bobko, P. (2001). *Correlation and regression: Applications for industrial organizational psychology and management*. Thousand Oaks, CA: Sage.

Brandt, R. (1998). *Powerful learning*. Alexandria, VA: Association for Supervision and Curriculum Development.

Bredeson, P. V. (1995). A journey toward community in educational administration. *Journal for a Just and Caring Education, 1*, 375.

Brodsky, A. E., & Marx, C. M. (2001). Layers of identity: Multiple psychological senses of community within a community setting. *Journal of Community Psychology, 29*, 161-178.

Bryk, A., Camburn, E., & Louis, K. S. (1999). Professional community in Chicago elementary schools: Facilitating factors and organizational consequences. *Educational Administration Quarterly, 35*, 751-781.

Burroughs, S. M., & Eby, L. T. (1998). Psychological sense of community at work: A measurement system and explanatory framework. *Journal of Community Psychology, 26*, 509-532.

Catano, V. M., Pretty, G. M., Southwell, R. R., & Cole, G. K. (1993). Sense of community and union participation. *Psychological Reports, 72*, 333-334.

Chavis, D. M., Hogge, J. H., McMillan, D. W., & Wandersman, A. (1986). Sense of community through Brunswik's lens: A first look. *Journal of Community Psychology, 14*, 24-40.

Chavis, D. M., & Newbrough, J. R. (1986). The meaning of "community" in community psychology. *Journal of Community Psychology, 27*, 335-340.

Chavis, D. M., & Pretty, G. M. (1999). Sense of community: Advances in measurement and application. *Journal of Community Psychology, 27*, 635-642.

Chipuer, H. M., & Pretty, G. M. (1999). A review of the sense of community index: Current uses, factor structure, reliability, and further development. *Journal of Community Psychology, 27*, 643-658.

Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences.* Hillsdale, N.J.: Lawrence Erlbaum Associates.

Cook, T. D., & Campbell, D. T. (1979). *Quasi-experimentation: Design and analysis issues for field settings.* Boston: Houghton Mifflin.

Davidson, W. B., Cotter, P. R., & Stovall, J. G. (1991). Social predispositions for the development of sense of community. *Psychological Reports, 68*, 817-818.

Deal, T. E., & Peterson, K. D. (1999). *Shaping school culture: The heart of leadership.* San Francisco: Jossey-Bass.

DePree, M. (1989). *Leadership is an art.* New York: Dell.

Dimmock, C., & Hattie, J. (1996). School principals' self-efficacy and its measurement in a context of restructuring. *School Effectiveness and School Improvement, 7*(1), 62-75.

Dooley, D. (1999). *Social research methods* (3rd ed.). Upper Saddle River, NJ: Prentice Hall.

Doud, J. L. (1989). *A ten-year study: The K-8 principal in 1988.* Alexandria, VA: National Association of Elementary School Principals.

Doud, J. L., & Keller, E. P. (1998). *A ten-year study: The K-8 principal in 1998.* Alexandria, VA: National Association of Elementary School Principals.

DuFour, R., & Eaker, R. (1992). *Professional learning communities at work: Best practices for enhancing student achievement.* Bloomington, IN: National Education Service.

Dunham, H. W. (1986). The community today: Place or process. *Journal of Community Psychology, 14*, 399-404.

Durkheim, E. (1947). *The division of labor in society.* Glencoe, IL: The Free Press.

Florida Department of Education. Education Information and Accountability Services. *Profiles of Florida School Districts 2001-02.* Tallahassee, FL.

Fullan, M. (1999). *Change forces: The sequel.* Philadelphia: Falmer Press.

Furman, G. C. (1998). Postmodernism and community in schools: Unraveling the paradox. *Educational Administration Quarterly, 34*, 298-328.

Gall, M. D., Borg, W. R., & Gall, J. P. (1996). *Educational research: An introduction.* White Plains, NY: Longman.

Glynn, T. J. (1981). Psychological sense of community: Measurement and application. *Human Relations, 34*, 789-818.

Goldhammer, K., Becker, G., Withycombe, R., Doyel, F., Miller, E., Morgan, C., DeLoretto, L., & Aldridge, B. (1971). *Elementary school principals and their schools.* Eugene, OR: University of Oregon, Center for the Advanced Study of Educational Administration.

Goodlad, J. I. (1981). Education, schools, and a sense of community. In D. Davies (Ed.), *Communities and their schools* (pp. 331-354). New York: McGraw-Hill.

Gusfield, J. R. (1975). *Community: A critical response.* San Francisco: Harper & Row.

Hall, G. E., & Hord, S. M. (2001). *Implementing change: Patterns, principles, and potholes.* Boston: Allyn and Bacon.

Hannah, J. S., & Kahn, S. E. (1989). The relationship of socioeconomic status and gender to the occupational choices of grade 12 students. *Journal of Vocational Behavior, 34,* 161-178.

Heller, K. (1989). The return to community. *American Journal of Community Psychology, 17*, 1-15.

Hoyle, R. H., & Kenny, D. A. (1999). Sample size, reliability, and tests of statistical mediation. In R. Hoyle (Ed.), *Statistical strategies for small sample research* (pp. 195-222). Thousand Oaks, CA: Sage.

Hughey, J., Speer, P. W., & Peterson, N. A. (1999). Sense of community in community organizations: Structure and evidence of validity. *Journal of Community Psychology, 27*, 97-113.

Institute for Education and Transformation. (1992). Voices from the inside: A report on schooling from inside the classroom. *Planning and Changing, 23*, 67-90.

Klein, K. J., & D'Aunno, T. A. (1986). Psychological sense of community in the workplace. *Journal of Community Psychology, 14*, 365-377.

Lambert, S. J., & Hopkins, K. (1995). Occupational conditions and workers' sense of community: Variations by gender and race. *American Journal of Community Psychology, 23*, 151-179.

Lorion, R. P. & Newbrough, J. R. (1996). Psychological sense of community: The pursuit of a field's spirit. *Journal of Community Psychology*, *24*, 311-314.

Louis, K. S., & Kruse, S. D. (1994). *Professionalism and community: Perspectives on reforming urban schools.* Madison, WI: Center on Organization and Restructuring of Schools, Wisconsin Center for Education Research, University of Wisconsin. (ERIC Document Reproduction Service No. ED379384)

Louis, K. S., Marks, H. M., & Kruse, S. D. (1996). Teachers' professional community in restructuring schools. *American Educational Research Journal*, *33*, 757-798.

Lounsbury, J. W., & DeNeui, D. (1996). Collegiate psychological sense of community in relation to size of college/university and extroversion. *Journal of Community Psychology, 24*, 381-394.

McMillan, D. W. (1996). Sense of community. *Journal of Community Psychology, 24*, 315-325.

McMillan, D. W., & Chavis, D. M. (1986). Sense of community: A definition and theory. *Journal of Community Psychology, 14*, 6-23.

Merz, C., & Furman, G. (1997). *Community and schools: Promise and paradox*. New York: Teachers College Press.

Murray, H. A. (1938). *Explorations in personality*. New York: Oxford University Press.

National Association of Elementary School Principals. (2001). *Leading learning communities: Standards for what principals should know and be able to do*. Alexandria, VA: NAESP.

Newmann, F. M., Rutter, R. A., & Smith, M. S. (1989). Organizational factors that affect school sense of efficacy, community, and expectations. *Sociology of Education*, *62*, 221-238.

Newmann, F. M., & Wehlage, G. G. (1995). *Successful school restructuring: A report to the public and educators*. Madison, WI: Center on Organization and Restructuring of Schools, Wisconsin Center for Education Research, University of Wisconsin.

Norušis, M. J. (2002). *SPSS® 11.0 guide to data analysis*. Upper Saddle River, NJ: Prentice Hall.

Pretty, G. M. (1990). Relating psychological sense of community to social climate characteristics. *Journal of Community Psychology, 18*, 60-65.

Pretty, G. M., Andrews, L., & Collet, C. (1994). Exploring adolescents' sense of community and its relationship to loneliness. *Journal of Community Psychology, 22*, 346-358.

Pretty, G. M., Conroy, C., Dugay, J., Fowler, K., & Williams, D. (1996). Sense of community and its relevance to adolescents of all ages. *Journal of Community Psychology, 24*, 365-379.

Pretty, G. M., & McCarthy, M. E. (1991). Exploring psychological sense of community among women and men of the corporation. *Journal of Community Psychology, 19*, 351-361

Pretty, G. M., McCarthy, M. E., & Catano, V. M. (1992). Psychological environments and burnout: Gender considerations within the corporation. *Journal of Organizational Behavior*, *13*, 701-711.

Price, R. H. (1985). Work and community. *American Journal of Community Psychology*, *13*, 1-12.

Puddifoot, J. E. (1996). Some initial considerations in the measurement of community identity. *Journal of Community Psychology*, *24*, 327-336.

Rosenholtz, S. J. (1989). *Teachers' workplace: The social organization of schools.* New York: Longman.

Rossi, R. J., & Shank, A. M. (2000). *Community in the workplace.* American Institutes for Research. Center for Community Research. Palo Alto, CA.

Rossi, R. J., & Stringfield, S. C. (1995). What we must do for students placed at risk. *Phi Delta Kappan, 77*, 73-76.

Royal, M. A., & Rossi, R. J. (1996). Individual-level correlates of sense of community: Findings from workplace and school. *Journal of Community Psychology, 24*, 395-416.

Royal, M. A., & Rossi, R. J. (1997). *Schools as communities.* (Report No. EDO-EA-97-3). Eugene, OR: ERIC Clearinghouse on Educational Management. (ERIC Document Reproduction Service No. ED405641)

Royal, M. A., & Rossi, R. J. (1999). Predictors of within-school differences in teachers' sense of community. *Journal of Educational Research, 92*, 259-266.

Sarason, S. B. (1974). *The psychological sense of community: Prospects for a community psychology.* San Francisco: Jossey-Bass.

Schlechty, P. C. (2001). *Shaking up the schoolhouse: How to support and sustain educational innovation.* San Francisco: Jossey-Bass.

Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization.* New York: Doubleday.

Sergiovanni, T. J. (1994). *Building community in schools.* San Francisco: Jossey-Bass.

Sergiovanni, T. J. (2000). *The life world of leadership: Creating culture, community, and personal meaning in our schools.* San Francisco: Jossey-Bass.

Sergiovanni, T. J. (2001). *The principalship: A reflective practice perspective.* Boston: Allyn and Bacon.

Shaffer, C. R., & Anundsen, K. (1993). *Creating community anywhere: Finding support and connection in a fragmented world.* New York: Putnam.

Shinn, M. (1987). Expanding community psychology's domain. *American Journal of Community Psychology, 15*, 555-574.

Snyder, K. J., Acker-Hocevar, M., & Snyder, K. (2000). *Living on the edge of chaos: Leading schools into the global age*. Milwaukee, WI: ASQ Quality Press.

Spady, W. G. (1998). *Paradigm lost: Reclaiming America's educational future*. Arlington, VA: American Association of School Administrators.

Starratt, R. J. (1996). *Transforming educational administration: Meaning, community, and excellence*. New York: McGraw-Hill.

Stickel, S. A. & Bonett, R. M. (1991). Gender differences in career self-efficacy: Combining a career with home and family. *Journal of College Student Development, 32*, 297-301.

Tonnies, F. (1957). *Community and society*. New Brunswick, NJ: Transaction Books.

BIOGRAPHICAL SKETCH

Mildred (Mev) Van Kessel Waskiewicz was born and raised in South Florida. After graduation from South Broward High School in Hollywood, she attended Broward Community College and Boston University before transferring to Florida State University, where she received her Bachelor of Science degree in social work in 1973. She continued her education at Florida State University and received her Master of Social Work (MSW) degree in 1974.

Mev began her career in social work by working as a school social worker for a federally funded program, Developing Models for Special Education, in the Jefferson County School District, Monticello, Florida. During her tenure, the program received state and national validation, and Mev served as an early contributor to the field of school social work and special education through presentations at local, state, and national conferences, as well as collaborating on the development and dissemination of written materials on the practice of school social work in special education.

Mev and her husband moved to the greater Daytona Beach area where she continued her social work career with the Volusia County School District. Through the support and encouragement of her mentor and supervisor, Shirley Lee, Mev was afforded numerous opportunities to serve the school district in a variety of capacities. After 10 years, Mev became supervisor of the school social work department. In addition, Mev was given many opportunities to coordinate a

variety of school district programs throughout her career, including a substance abuse prevention/early intervention program, the district's home education program, truancy centers, a juvenile assessment center, school health services, school psychological services, homeless education, and the federally funded Safe and Drug Free Schools program.

Mev entered the University of Florida doctoral degree program in 1997. During her pursuit, she received her Specialist in Education degree in 1999, and was elected to Phi Kappa Phi, an honor society in higher education, in 2001.

Mev has been a supporter of the National Association of Social Workers (NASW) throughout her career. She received credentialing from the Academy of Certified Social Workers (ACSW) as well as the Certified School Social Work Specialist (C-SSWS) credential through the National Association of Social Workers. She also has been an active member of the Florida Association of School Social Workers, having served as treasurer, conference co-chair, and chair of a Best Practices committee.

Throughout her years of working for the school district, one of the most rewarding aspects was the opportunity she had to collaborate with very dedicated, caring, and supportive individuals. She felt satisfaction in encouraging and supporting those with whom she worked to contribute their unique talents and abilities for the benefit of students and families that were often those most in need.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

James L. Doud, Chair
Professor of Educational Leadership, Policy, and Foundations

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Thomas D. Oakland
Professor of Educational Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Anne E. Seraphine
Assistant Professor of Educational Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Frances M. Vandiver
Lecturer of Educational Leadership, Policy, and Foundations

This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

December 2002

Dean, College of Education

Dean, Graduate School

LD
1780
20 02
.W3193

UNIVERSITY OF FLORIDA
3 1262 08557 2435